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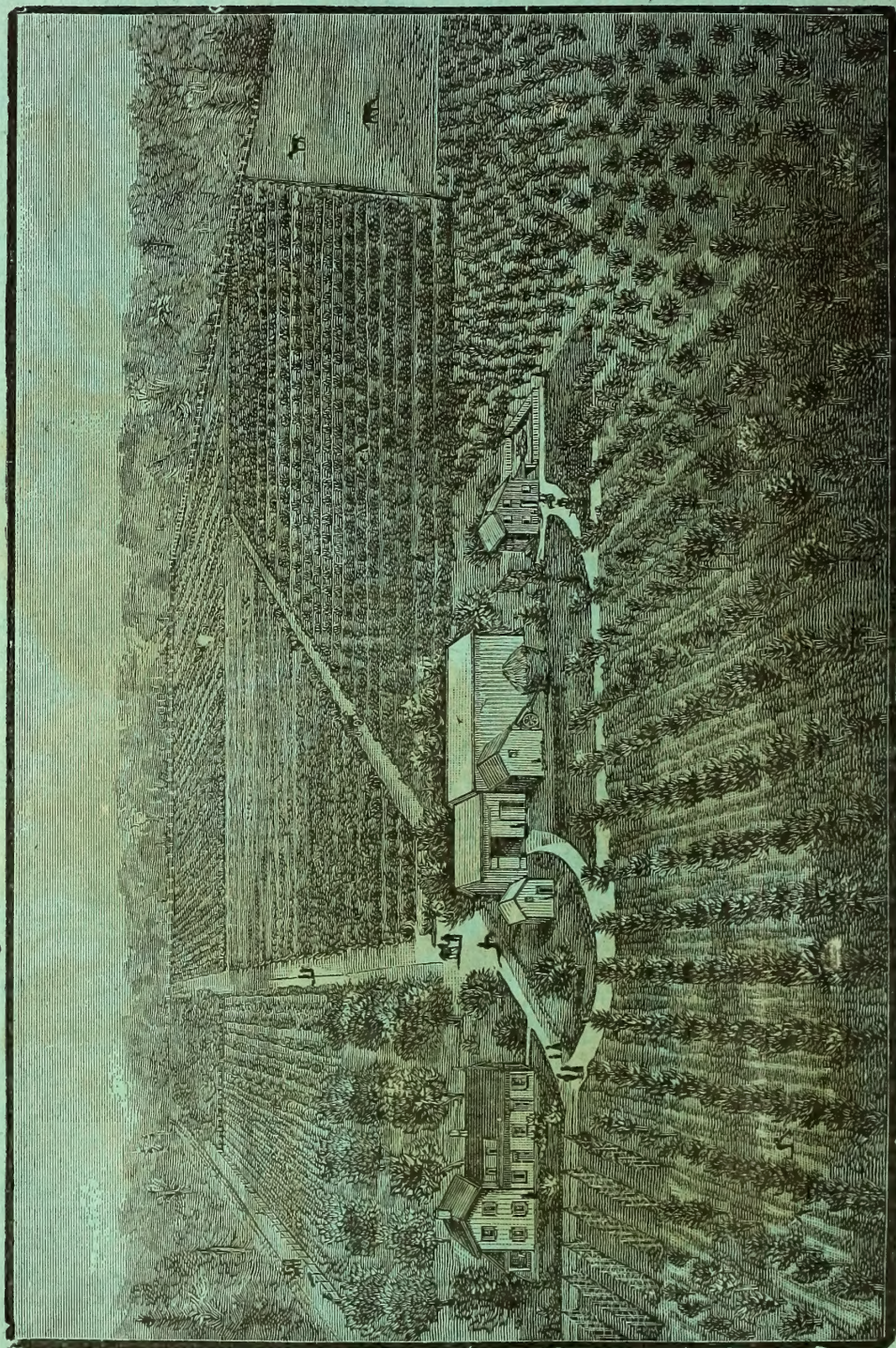
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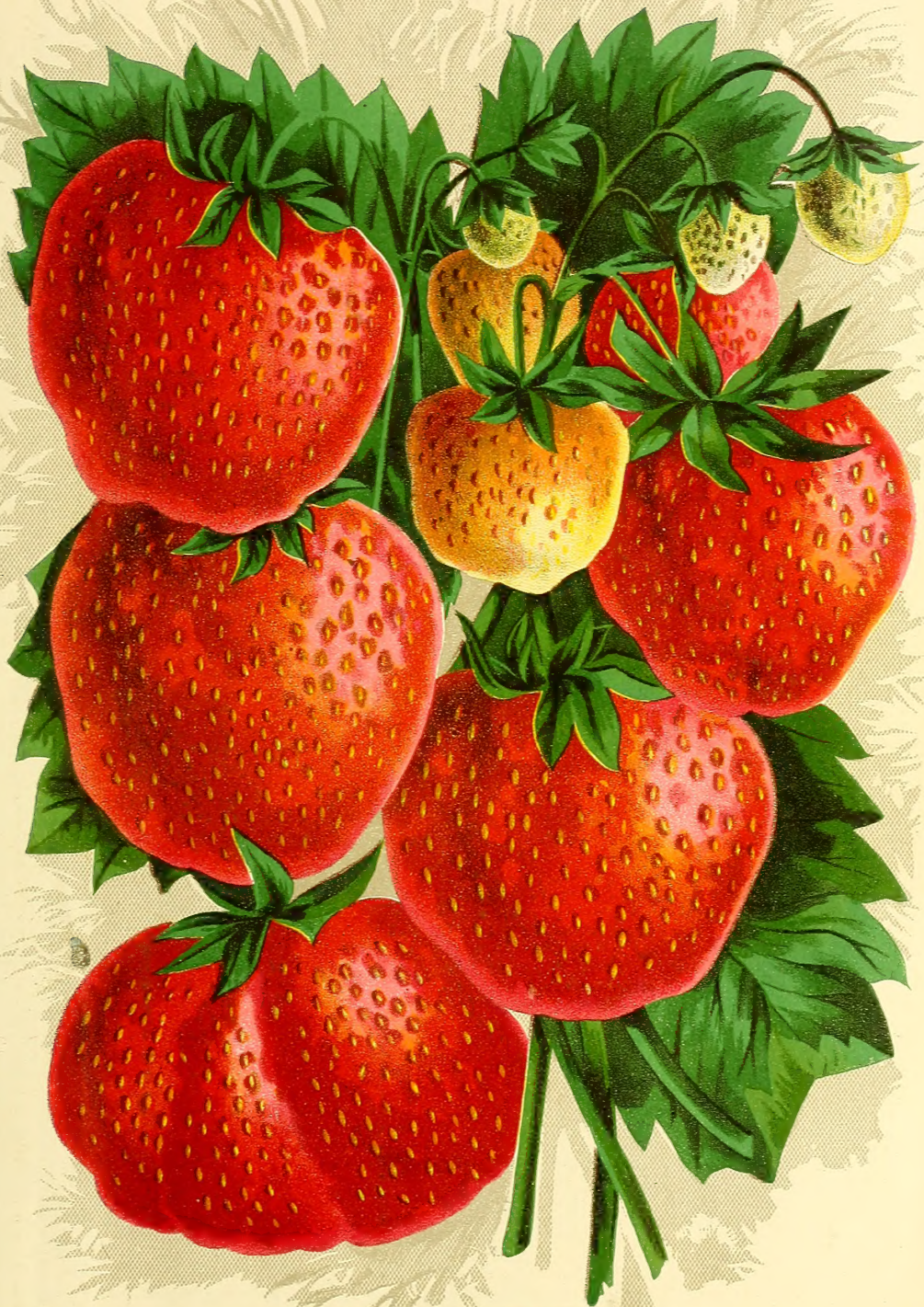






Green's Nursery and Fruit Farm, near Rochester, N. Y.





### **JESSIE STRAWBERRY.**

A SEEDLING OF SHARPLESS, OFTEN MEASURING NINE INCHES AROUND, FEW SMALL BERRIES. NO LEAF BLIGHT. REMARKABLE FOR QUALITY, BEAUTY AND PRODUCTIVENESS.

F.A. STECHER, LITH. ROCHESTER, N.Y.





# THE STRAWBERRY.

BY CHARLES A. GREEN.

## Construction of the Strawberry.

I hold in my hand a small plant, weighing less than half an ounce and quite insignificant in appearance. I expect this plant will in time yield a quart of strawberries. By what method does it produce this enormous product? Its roots are spongy and weak, its few leaves not remarkably sturdy, and yet this combination of the roots and leaves of one small plant will furnish not only a dish of berries for two guests, but seed enough to re-stock the entire universe if properly manipulated. I set this plant in fertile soil, where it cannot be robbed by the shade or roots of trees or plants, and watch the results. New roots begin to form immediately, branching in every direction, but principally horizontally, at first white as snow, then darker brown, and later almost black. If, after the plant has been growing a year, we apply a stream of water, running rapidly from the nozzle of a hydrant, washing the soil gently from the plant, we shall be astonished at the number of roots and the extent of their growth. In digging plants nine-tenths of their roots are often destroyed and remain in the soil.

As root growth progresses, additional leaves shoot up into the sunshine, until a happy equilibrium is established between leaf and root. Those who see a tree or plant growing, recognize only the part visible, calling that the tree or plant, whereas the part underground often equals in extent of surface covered, and in many instances greatly resembles, the part appearing above ground. I have seen roots of trees overturned by the tempest, which if planted with the roots pointing toward the sky, would be mistaken by most persons for a leafless tree.

*By what process do these roots and leaves of the strawberry produce the delectable fruit?*

There are many able men in our land who have devoted long lives to the study of chemistry. They can tear our atmosphere apart, also water, and restore each to its original

condition, or make from them deadly compounds. They may combine two substances and form a third entirely unlike either of the original combinations in appearance, density or taste, and yet this simple strawberry plant excels by far in achievement the work of all chemists. The chemist in his laboratory has every needed appliance, he may have invested many thousand dollars in his equipments, and yet the laboratory of the strawberry plant can put to shame its costly outfit.

## WORK OF THE ROOTS AND LEAVES.

*What has the strawberry upon which to manufacture its fruit?*

It has the chemicals which are always stored in a fertile soil, such as phosphoric acid, potash, ammonia and many other ingredients. It has a supply of water, which in most soils is unfailing, and its methods of pumping water from the soil is unequaled by the inventions of man. When the soil is apparently destitute of water these roots continue to gather and conduct it to the leaves. Roots have great penetrating power, and force their way through the hardest soil. Though apparently so pliable they feed upon the hardest bones and rocks, first exuding an acid that liberates the food from such flinty surfaces; if the water or food supply fails they travel for more; if the soil is too wet below they feed more on the surface, and if poor on the surface they feed further below; if a neighboring row has more feed given it these roots run over there and steal a little; if the cultivator or hoe breaks them they throw out new roots immediately.

The leaves are equally remarkable, absorbing carbonic acid gas, which is given off by animals, and which to them is poison, throwing off oxygen which is life-giving to animals. By this economical method of nature, the air is kept in a healthful condition for both plants and animals. The leaves may be said to digest the sap which is thrown into them from the roots. When properly digested or assimilated thus, the

Turn at once to page 25 and page 31 for important offers. See **PRICE LIST** on page 32. See **LETTER of ANSWER to INQUIRIES** on last two pages of cover. Our **ORDER SHEET** is on last page. See page 37 for Clubbing Offers of popular Journals.



sap descends to recuperate the vital forces, to extend leaf and root growth, to fortify fruit germs and nurse the fruit in its different stages.

Wonderfully as the strawberry is endowed it has no legs or wings, but it is anchored where I plant it, yet it inherits a desire to be sociable, and wishes to kiss its sweethearts in various parts of the field. By what method will it accomplish this? There are bees that must find honey or die, so the strawberry throws out white blossoms to entice bees that way, much as a ship-wrecked sailor raises a flag to attract a passing ship. A little nectar is stored at the base of the blossom, and enough fragrance to mark the spot. The busy bee thrusts his proboscis now into one flower, then into another, each time covering his head with the pollen, placed wisely where he must collect it or forego the nectar, thus carrying it from plant to plant. This enables the anchored strawberry to do its kissing by proxy.

Strawberries require rest the same as animals, though not to so noticeable an extent. This has been shown by introducing electric lights at night, when the plants gave satisfactory evidence of needed rest, such as the night and dormant seasons afford.

*Will chemists ever be able to construct a strawberry?*

They have at hand all the ingredients necessary. All they require is the necessary skill. Chemists already imitate the flavors of fruits, such as are used in soda water, ice-cream and different kinds of confectionery. We get the flavor of pineapple, lemon, orange from other chemical combinations, the contemplation of which would make us shudder, should we smell or taste them in their natural state. The strawberry, also, may produce delicious berries when planted over the burial place of a dog, thriving upon the corruption beneath, yet leaving no taint in the ripened berries. The chemist has manufactured eggs so closely resembling the genuine that the fraud cannot easily be detected, but the day is far distant when they will attempt to manufacture strawberries, yet the tendency of science is in this direction. The science of chemistry is about only 100 years old. In the past it has been mainly occupied in dividing the elements into their primary atoms. Chemists are now occupying their time more largely in forming new compounds out of the mass of materials available, with most astonishing results. I desire to call your attention to, and to excite your imagination to picture, such a strawberry as the chemist might construct, compared with a well ripened Downing or Sharpless, gathered with the dew of the morning upon it, glossy as a polished gem, every seed set like a jewel in a Queen's diadem, the whole capped by a fringe of delicate green, and fragrant as the sweetest rose.

I shall be satisfied if these opening thoughts may lead you to appreciate the wonderful capacity, possibilities and super-human mechanism of a strawberry plant.

### History of the Strawberry.

*Will you tell me about the strawberry?*

The strawberry, my son, is not as old as the hills and mountains, but older than man. I believe that strawberries blossomed and blushed in the garden of Eden. Strawberries were created for man and the Almighty doubtless gave the whole human family an opportunity to enjoy them. Early historians and poets wrote little about the strawberry, preferring to search for riots, murders, or conquests in war, and love, yet Virgil and others found time to sing its praise and Pliny to record its virtues. The strawberry of ancient days was one that flourished without invitation from man; a wild strawberry, small and fickle, fragrant and delicious, playing Bo-Peep in the meadows and stump lots.

*When were strawberries first cultivated in gardens?*

Shakspeare, who neglected nothing, states that strawberries were grown in gardens during the reign of Richard III., but they were a rarity at that time. The first varieties mentioned are the Red and White Wood, Alpine types, the Green Fruited, the Virginia Scarlet, the Bohemian or Haut-boy's. These were evidently wild strawberries, no attempt having then been made to produce improved varieties by present processes. In 1660 the Claperton strawberry was originated by a Frenchman, a seedling of the Wood. This was probably the first strawberry grown from seed, with the intention of improvement.

*Were there no enthusiasts in strawberry culture in early days?*

Andrew Knight was the first practical enthusiast, beginning his work about the opening of this century. He was a man of remarkable skill and energy, originating many new fruits of various kinds, giving great impetus to pomology of his day, advancing new theories and overcoming supposed impossibilities. The interest in improved varieties of strawberries and other fruits was revived, I might say inaugurated by the appearance of Andrew Knight.

*What is the cause of barren strawberry beds?*

The question you ask could not have been answered in early days. Great complaint was made about the fickleness of the strawberry, the blossom running wild as it was called, setting no fruit. Strawberry growers suffered from this peculiarity without having been able to solve the enigma. It has been claimed that Nicholas Longworth, of Ohio, was the first to discover the cause of barrenness, which is imperfect blossoms, or by imperfect fertilization of blossoms.



Most strawberry blossoms are hermaphrodite, others being pistillate or staminate. Hermaphrodite strawberries are productive under all circumstances. Pistillate and staminate are productive only when planted within say ten feet of each other. When I was a boy I cultivated imperfect blossoming strawberries year after year, securing no fruit, without knowing the cause of failure. There are thousands who have had the same experience. The Wilson, Sharpless, Downing and Bidwell are examples of the hermaphrodite, the Crescent, Manchester and Jewel are examples of the pistillate, which must be planted near the hermaphrodite to be productive.

*What was the name of the first improved strawberry of importance?*

The first great strawberry was the Hovey, which originated with Mr. Hovey, of Boston, in 1834. It was an improved American strawberry (*Fragaria Virginiana*), a branch of the family that has proved itself capable of greater improvement than the Alpine branch. Old strawberry growers refer to the Hovey as remarkable, both in quality and productiveness. It was a pistillate variety leading to many failures but rewarding the grower liberally when circumstances were favorable. The introduction of the Hovey created increased interest in strawberry culture, and led many to cultivate it who had never before given the subject attention. Since the introduction of the Hovey thousands of new varieties have been introduced, the most prominent being Wilson's Albany, which also created a sensation in its day, the remarkable yield of which led to field culture of the strawberry, inducing the planting of thousands of acres for market purposes. Among those of great value that appeared after the Wilson, were the Downing, Crescent and Sharpless, the first being a type of the better quality, the second of the most productive, and the last of the largest size. Others were originated that were of value in certain localities and many were introduced without receiving a thorough test, so rapidly were new varieties produced, but the above three must go on record as the most valuable the country over of the latter-day introductions that have been well tested.

*How came the strawberry by its name?*

Its name was given from the practice of covering the ground with straw after clearing out the weeds early in the spring. The berries lay upon, and become mingled with the straw, appearing to be borne by the straw, hence the name. This mulching is practiced to this day and is desirable, especially with hill culture, not only to keep the berries clean, but to keep the soil moist and cool.

*I am to understand then that the improved strawberry is of comparatively recent introduction?*

Certainly. At this date the originator of the Hovey, the first great strawberry, is liv-

ing, and continues his useful work. While strawberries have been eaten from time immemorial it is only within the past twenty years that it has received the attention it deserves. Even now the country as a whole is insufficiently supplied, though there may often be a surplus at points where large tracts of land are devoted to its culture.

## Peculiarities of the Strawberry.

*Does the strawberry succeed in the South?*

Yes, it thrives over nearly the whole globe. In South America little attention is given it, yet such varieties as they have are productive, though the quality is inferior to those grown North. In our Southern States it has proved exceedingly profitable, shipped North in April and May, selling from 25 to 75 cents per quart. It remains longer in fruit in Georgia and Florida than at the North, and the methods of culture there are peculiar. Varieties that succeed South are of little value North. There is no trouble in shipping from the South to all parts of the country in refrigerator cars.

*How far North does the strawberry succeed?*

It thrives far north of the corn and wheat growing sections, approaching close to the Arctic regions. It favors the North and grows all Winter under heavy sheets of snow, forming new roots and sending them in search of food. Where the peach, plum, cherry, apple and pear succumb before the blast the modest but sturdy strawberry comes up bright and smiling with each succeeding spring. The treeless plains of Dakota and other North lands can be made fragrant with strawberries.

*Why is the strawberry called fickle?*

In old times for the reason that it was not understood. A man, woman, cow or horse would be fickle if banished to an isolated spot to live alone without companionship. The strawberry is intensely social and a jolly good companion, but he must be studied and comprehended. Then there are as many kinds of strawberries as of men and women. Some are all talk and no cider—all show of blossoms and no fruit; others are immense in foliage, glossy and fancy frilled, yet are as unprofitable as the fops that strut up and down Broadway. Others are plain and unpretending, but put in an astonishing amount of work, and when harvest comes the husbandman puts extra lining in his pockets to hold the accumulating hard cash.

*Insects help to make them fickle, I suppose?*

Yes, yet no other fruit is so little affected by insects. The larvæ of the May beetle gnaws at the roots, a little flea bites its leaves, an ugly beetle bores into its ripe



berries; over forty species of insects prey upon it; ten of these devour the root and crown, many more feed upon its leaves. The flowers do not escape depredations, but the strawberry scarcely stops laughing or growing on account of these pests. Late spring frosts and weeds are its worst enemies. It is strange that a plant hardy enough to withstand an Arctic winter should lose its crop from a June frost, but such is the case. Frosts do no injury to the plant, but the blossoms and immature fruit are easily destroyed. The strawberry grower sleeps uneasily, if at all, when frosts are impending in May and June. Often he is up all night building fires or making clouds of smoke to ward off disaster, but such labors are generally unavailing. The remedy is to plant on high ground, as frosts often destroy the fruit in valleys, while on hillsides adjoining no injury is noticeable. I learn recently of growers who prepare piles of brush and straw early in the seasons at various points in the field ready for lighting. A thermometer is connected with the house by a wire, so that when the temperature gets down nearly to the freezing point an alarm bell is rung which awakes the proprietor, who rouses all hands, burns the brush, makes a dense smoke, and saves the crop. There are few localities where such a method would be practicable.

#### THE SOCIABLE STRAWBERRY.

*Why do you say that the strawberry is sociable?*

It is more productive when grown adjacent to different varieties. All plants are more or less sociable, and desire associates. We cannot explain this fully, but there is greater similarity between plants and animals than is supposed. This is a wonderful world, created by an all-powerful Being, and we cannot expect to learn everything about His creations during one short life, yet great things are being discovered each year, and by-and-by we shall all have a better understanding of the Maker and his works.

*You have an exalted opinion of the strawberry?*

Yes, it is a wonderful plant, the most productive in proportion to its size of all plants. Think of 200 berries being produced upon one plant, the entire foliage and roots of which you can thrust into your vest pocket. Consider the rare beauty of the fruit in form and color, the exquisite fragrance and flavor, its healthfulness, and above all, its early ripening. Before the big trees have fairly begun to get ready for business the little strawberry plant has made the earth red with its fruit, shaming all competitors. It is so full of business instincts it lays its plans nearly a year ahead, the fruit-buds for next year being formed this season, so that when the first sunshine wakes them from winter's sleep they have simply to open the windows and out pop

the blossoms. Not a moment's time is spared, for you scarcely realize that summer is here before the ripe fruit is laid upon your table, fat, tender and chubby as a new born babe.

*What effects have you noticed in strawberries of different varieties growing near each other, as compared with those in isolated positions?*

I have observed that those grown near other varieties are more productive, and bear finer specimens. There are fewer unfruitful blossoms. Others (good authority) have found the color, shape and quality affected by such proximity. While the subject has recently received close attention, it is not new to old strawberry-growers, and is not peculiar to the strawberry alone. Notice how busy the bee is among all fruits in blossom. I watched one yesterday, counting twenty blossoms that he visited in a minute, 1,200 in an hour, 16,000 blossoms in a day of fourteen hours. How many blossoms could one swarm, or one hundred swarms visit? These bees are laying by a winter store, yet doing greater work in carrying pollen from blossom to blossom, making them more fruitful. Fertilization not only affects the seed and the berry. As shown by Mr A. S. Fuller, it affects the plant itself, most noticeable in the fruit stem. If the blossoms are not fertilized the fruit stem withers and dies. If its blossoms are fertilized the fruit stems continue to increase in size and strength, striving manfully to bear up the enormous burden.

#### Recollections of the Author.

*What were the conditions of strawberry culture when you were a boy?*

Strawberries were a great rarity then my son. When I was a small boy my father moved from his farm into a large house with extensive garden and grounds near the village. I remember the old pear trees that surrounded the garden, but I do not remember eating fruit from them, and am sure there were no raspberries or strawberries; but over the fence, in one corner of our neighbor's garden, there was a promising bed of strawberries, partially shaded by an apple tree. I remember well how promising this bed looked in early spring, the leaves large and luxuriant, the blossoms lying like snowflakes between. Later on, and yet very early as it seemed to me, I discovered berries ripening as I peeked through the bars of the fence. How I longed to be the owner, that I might search for the tempting fruit. This was the only bed of strawberries in the village, and no strawberry man visited it at morn and eve. The good people were absolutely destitute of strawberries. This was the condition of things in all the villages with very rare exceptions, and yet we lived near Rochester, N. Y., then as now famous



for her gardens. Some years later my brother planted strawberries in his farm garden. They grew vigorously, but I do not remember seeing berries, and I think they were unfruitful. There was one, equal in vigor to anything we have at present, and another more dwarfish like the Crescent; the latter I planted in our farm garden, after leaving the village, but succeeded in getting but a few scattering berries of a white color very small and sweet, of a pine apple flavor.

A few years later I secured plants from another source, and planted several rows across a large garden. As usual I succeeded in getting a fine stand of plants which blossomed freely but bore no fruit. Many seasons I would find one or two berries after a long search through the beds. One season, for some unaccountable reason, the bed bore a large amount of large handsome fruit, which I gathered in tin pans and marketed in a university town at commencement day. I am sure I did not ask enough for the fruit, for the first man I approached took all, and was very glad to get them. I do not doubt, that my cause of failure other seasons was owing to late frosts which fell with severity upon the valley where my strawberries grew.

#### BUYING IN OLD TIMES.

*Did you know of anyone who grew strawberries for market?*

Yes, when twelve years of age my sisters engaged me to drive with them to a strawberry grower, about eight miles distant, for the purpose of getting a supply of berries. This grower seemed a mighty personage in my estimation, and I walked over his grounds with great interest. He was the only man in that part of the country who grew strawberries for market, and his entire planting was less than an acre. We purchased ten or twelve quarts paid as much as we would now pay for a bushel, and returned happy. You must not think that we ate those strawberries with cream and sugar for supper, for not one of them was wasted in that rash manner, all being sealed up in old-fashioned bottles for festive occasions, in which I took very little interest. It would have been my choice to have had them fresh for supper, and I think to this day my choice would have been wise, for while a fresh strawberry, half smothered in cream and sugar, is the most tempting dish that can be placed before boy or man, when canned it is simply the ghost of a strawberry, of pale and sickly complexion, its mingled sweetness and acidity no longer recognizable, its form distorted, its beauty gone forever.

*How about the wild strawberries of those days?*

In going to school, we often went across lots and through the woods in search of the Indian smoke pipe, also to find a shorter

route. One June morning we found on the knolls of the meadow wild strawberries, hanging like jewels among the tall timothy and June grass. We gave a scream of joy and gathered the fragrant beauties into our caps and aprons. There was another patch back of the school-house, on a low piece of ground, and during the season of ripening, every member of the school might be seen scrambling there, each one lucky if he secured from six to ten specimens. I remember, again, going for wintergreens to a distant woods, and there finding wild strawberries in a new clearing among the stumps and rocks. We hear very much at the present day about the quality of the wild strawberry. This is well founded, for there are few wild strawberries that are not of good quality, and yet, we must consider that the wild strawberry as usually gathered is fully ripe, while most cultivated strawberries are picked before maturity, and such never reach their best estate. In this manner the cultivated strawberry has been unevenly weighed in the balance. There are few cultivated strawberries which, if left upon the vines until fully matured, are not of good quality and some are equal in flavor to the best wild strawberry.

#### STRAWBERRY CULTURE.

##### Talk with a Practical Man With No Nonsense About Him.

I have just returned, father, from a visit to Mr. Stump and Mr. Fitzbobbin, both among our largest strawberry growers, and will give you my conversation, first with Mr. Stump.

*What kind of sub-soil plow do you use in preparing your land, Mr. Stump, I asked.*

Bosh on your sub-soil plows. I use none of them. A plow good enough for corn or potatoes is good enough for strawberries. I plant only on soil planted the past year with potatoes which I have kept clean from weeds and grass. This land I cover with yard manure before planting potatoes. I plow twice in the fall. In the spring I harrow and gang plow before the soil crusts over, then plow again, roll and harrow until the soil is very fine as deep as plowed. Then I mark with corn marker and plant.

*Do you set each plant on a mound of earth, spreading the roots around the mound?*

Bosh on your mounds! No! I make a hole as deep as the length of the roots and plant without any puttering. I don't wait for a rainy day either, but plant as early as I can get the soil ready, in rows three and one-half feet apart, twelve to eighteen inches apart in the rows. I set none but good strong plants of last season's growth, throwing away all old plants with black

roots, picking off all blossom buds, allowing no fruit to form the first season.

*What commercial fertilizers do you use?*

Bosh on your bones and fishes. I use none of them. I keep lots of hens, and after a while when I get time I scatter a little hen manure, pounded fine and composted with muck, around each plant. The Rural New Yorker says the manure from a hen during one year is worth fifteen cents, making the value of such manure over the whole country worth \$19,000,000, and I believe it. I want the soil in good heart, but take no stock in making myself poor by putting on more manure than I can pay for. Good cultivation helps out my manure pile. I keep the cultivator going often, hoe often, and never let the ground get hard. If strawberries won't give a good crop with such work, I will have none of them.

*You draw each runner out and put a stone over it when you wish it to root I presume?*

Bosh on the stones! No! I let the runners take care of themselves, but I run the cultivator the same way each time, so they don't get torn up, and when enough have rooted I stop others from taking root. Lots of growers blunder by letting all the runners make plants. Then the plants stand as thick as hair on a dog's back. A plant can't ripen 100 berries on half an inch of soil. No! It must have a decent chance, and this I try to give. There's the James Vick strawberry. Some people curse it, some bless it. It is a good berry if you give it a chance. But it makes lots of plants, and if let alone fills all the spaces. Then when it tries to swell out the loads of berries it can't do it, and then it gets kicked. Why when grown on hills it is a wonderful yielder, giving big profits. Those Durand seedlings don't spread so fast, and some other kinds give no trouble by crowding in the rows, but they hain't got much back bone and don't amount to much one way or another. All the great berries are runners, and it is no fault I say.

*What method do you pursue in irrigation?*

Bosh on irrigation! I was green enough once to spend money that way, but now I leave that for the boys to play with. It may do where they don't get rain for six months at a time, but with our booming showers it is nonsense to talk of irrigation. The hoe and the cultivator are my water spouts. If they can't keep the soil moist then dry it is, and dry it may stay. I never saw my soil so dry that the berries could not pump water out of it.

*You grow in hills sometimes do you not?*

Yes, I call them hills. I plant kinds that succeed best in hills two and one-half feet apart each way in square plats, then cultivate both ways all the season. When winter comes I have a hill made up of six to twelve strong plants. I cover each hill

with strong litter when the ground freezes, and get good fruit you bet, and they will go right on bearing year after year, if you keep the grass and weeds out.

*What implements do you use for cutting the runners?*

Bosh on your runner cutters! If I bought all the machines the agents try to sell I would fill my farm with 'em, and go to the poor house in the end. Some folks catch the runners by hand and shear them off, some run a sharp wheel over them, some use a sharp edged circular steel blade fastened to a hoe handle, some one thing and some another, and when berry picking comes they walk over here and gap around with mouths wide open wondering how it is I beat them. I tell you boy there is no nonsense about me. There is more foolishness, and more dog-goned bosh about some strawberry fellers, than you can shake a stick at.

*You have read the books on strawberry culture I presume?*

Bosh on your books! Yes, I have read them, and if I had done as they told me I would have busted long ago. Why boy it is all nice enough for a man in patent leather boots, sitting in an office in Broadway, writing poetry about strawberries, but let me tell you it is work that brings the berries; work I say, and hard work too, tugging and sweating. Don't take stock in them poetry fellers. Don't get the notion that a big patch of berries, growing as rank as horseradish, without gaps along the rows, come there by whistling for 'em, or by singing songs, or by walking along the rows with a paper collar on and a fancy cane in hand. Just bet your life that the man who owns that patch about broke his back planting and weeding and hoeing, and if he hadn't he wouldn't get any profit out of 'em.

*Don't the papers give good advice about berry culture?*

Bosh on the papers! Half the men that write for them don't know a strawberry from a bean pole, and it is just that kind that makes the trouble. They lie awake nights hatching out new notions, then without trying them, rush to the printer, and the fuller their writing is of wild, hair-brained notions, the wilder the printer is to print it. Then everybody says: "That man is full of ideas. He hain't in the ruts. He is a progressive, go ahead feller." Bosh on him I say. Why when I started I was tickled to death to find such notions in print. I'd paste the scraps on the inside of my hat, on my pocket book and over my bed to read at night. Now I smile sort of wicked like, and just let 'em slide. No more nonsense on my dish if you please.

*Did you ever get led astray by such newspaper correspondents?*

Well you needn't guess again. When I first begun one of those strawberry fellers said, strawberries should be planted eight



feet apart both ways, that no one gave them room enough, that they would spread and spread, and grow and grow. No end to what he didn't say in a big fierce way. Well this took with me, for you see I was pretty green, so I planted mine that way, after putting on all the phosphate I could get trusted for. It happened to be a bad year for grubs, so one after another those plants eight feet apart was eaten up, till at last you would take the whole patch for a summer fallow, or a place laid out for playing base ball. Then another feller said he had a mixture, "that would make the plants grow like a house afire." Well I had to send for some of that mixture, and I dosed the plants pretty heavy, for if a little was good, a good deal must be better. Next day the plants looked sick, as though they had the measles or mumps. The blamed stuff had burned them up, "like a house afire" as the feller said it would.

*Have you had any acquaintance with the paper correspondents of which you complain?*

Only with one. He was such a tremendous writer, and had such wonderful experience, and for so many years, and such big ideas, I drove forty miles to visit his place during my green years. Believe me boy, he had just two dozen plants growing; four kinds, six of a kind, and they were not uncommon big either, but looked just like those of which I had a million at home. I smiled a sickly smile, remarked that it was a fine day for strawberries, and jumped into my wagon homeward bound, much wiser.

*You test the new varieties as they are introduced, I suppose.*

Bosh on your new kinds. More than half don't amount to shucks. Now and then a good one comes out. Fitzbobbin, over there, buys all the new sorts. I go ever and see how they get along. If they look like a good breed I plant 'em, and if not I smile as well as I know how, remark on the weather, and go back to hoeing my Crescents and Sharpless.

Well, my son, I am much interested in this plain talk. Mr. Stump is a man of good sense, and he is correct in a good many of his hard-earned opinions. But I do not agree with him in all he says. Agricultural papers have improved of late, and there is less nonsense in them. I have received much assistance from them, and you can also, providing you have discretion enough to discard that which does not appeal to good common sense.

It is not so difficult to secure strawberries in the winter as many suppose. Anyone who has a green-house supplied with proper heat may succeed. Strawberries may be ripened several weeks in advance of the regular crop, by having a bed located on a dry, warm site, protecting it from frosts by cold-frame covered with glass.

## MR. FITZBOBBIN'S METHOD.

### A Man Who Indulges in Non-sense (?) Now and Then.

I will now give you the result of my conversation with Mr. Fitzbobbin:

*I have often heard you spoken of Mr. Fitzbobbin, as one of our most enterprising fruit growers, and I have come to get a few points on strawberry culture. Has there been much progress made in the new varieties of recent introduction?*

There have been remarkable results, and varieties that would have been grown ten years ago, and considered of great value, are not now considered worthy of cultivation. It is not long since the Wilson was the only berry of much consequence in market. The Wilson is a hard, sour, dull looking berry and it has done much to reduce the sales among those who appreciate good fruit, but it has been a good producer, and being firm, is desirable for shipping. Its leaves are now affected by rust more than any other variety, and I have stopped growing it. There are newer varieties which have proved of greater value. Improvements in plants as well as animals come slowly but surely.

*Do you purchase the new varieties as they are introduced?*

I buy all that come recommended from reliable sources, but do not plant largely until I have tested them thoroughly. These new varieties have proved valuable and profitable on the average, although in some instances they were of no value whatever yet those that proved worthy were sure to be in demand by my neighbors and acquaintances, and I have always sold enough plants to more than cover the original cost and culture. Aside from the profits, I have derived much pleasure from watching the development of these novelties. Half the pleasures of life are composed of anticipations, many of which are never realized. There are great possibilities in the development of a new strawberry. I plant them with my own hands, watch them daily as they bud and blossom, and thus keep posted on the subject. It seems to me that a man should know what is going on in his department, and attend the horticultural meetings, and having tested the new varieties be able to contribute his share on the subject. If no one did such work as this we should make but little progress.

*What is your method of preparing the soil for strawberries?*

I first drain the soil in the most thorough manner with tile. I find that soil thus drained retains moisture better than that underdrained, and yet never retains a superabundance. I do not apply manure the same season that strawberries are planted, as it would be rather an injury to them than otherwise, but always manure the season before planting, never fearing the

application of too much yard manure and other fertilizers. I thoroughly subdue the soil one year in advance of planting. Nothing is more important than this, for it does not pay to cultivate strawberries upon soil occupied by weeds and grass, so a thorough fining and cleaning of the soil is always given before planting. Land plowed but once, though made fine on top, is apt to be coarse underneath. Such soil dries out rapidly, while soil that has been plowed two or more times and thoroughly pulverized holds moisture in remarkable manner throughout the entire season.

*Do you use a sub-soil plow?*

Yes, I do not consider my soil properly fitted until sub-soiled. While subsoiling is not absolutely necessary, I find that the soil dries off more rapidly after storms when subsoiled, and retains moisture better in a drouth, and it costs but a trifle to follow the common plow with the sub-soiler, which runs from six to ten inches deep without throwing any of the sub-soil to the surface. It would be a calamity to have the sub-soil mixed with the surface soil or thrown over it.

#### HOW TO PLANT.

*Do you practice the fancy methods of planting?*

There is much careless planting done, which prevents the plants from gaining a foot-hold in the soil rapidly. It is astonishing how little some people know about the wants of a plant or tree. I have known men to send a long distance for plants, which arriving during a hot, dry spell, were dropped by a boy far in advance of the planter, and left exposed to the sun and wind until life was nearly extinct. Then the plants were doubled up and squeezed into a shallow opening and covered with a little dry earth in a hurried manner, or else, as is too often the case, the plants are so buried as to cover the crown, causing it to rot and perish. On the other hand there is often more pains taken than is necessary. A flat dibble one foot long is the best implement for planting, or if this cannot be obtained, a common spade will take its place. Either may be thrust into the ground eight inches deep, the earth pressed aside far enough to admit the roots of the plant, being careful that the crown of the plant is set no deeper than before digging, that the roots extend their full depth into the soil, and that they are spread out somewhat when placing them in position, rather than to have them massed together.

*How do you manage runners when new plants begin to form?*

You have now touched upon one of the most important features of strawberry growing. By the usual methods these runners are as bad a pest as the weeds and grasses that choke up the rows, but if properly handled they may be made to double and quadruple a crop. I cut off the run-

ners that first appear on the plants, allowing none to grow until August, by which method the parent plant becomes exceedingly vigorous, and the ground is kept entirely free from weeds, whereas, it could not have been had the plants been allowed to take root sooner. When the proper time has come for permitting the runners to take root, I draw the runners toward the vacant spaces, between the rows, with a rake. This distributes the runners evenly over the surface, whereas, allowing them to be crowded along the row by the cultivator, is fatal to the best results, as the plants root much too closely together. If the runners form too rapidly, as they often do, I send my boy along the rows with a sharp implement about the width of a row, to chop off the superfluous ones. My aim is, to permit the young plants to form about six inches apart all over the surface, except a narrow place for the picker's walk. I am aided in accomplishing this, by having rows four to five feet apart, when first planted. Even at this distance apart, strong growing varieties, on my rich soil, will grow together, filling all the spaces between the rows, should I permit them to do so. Where strawberries can be grown on rich soil free from weeds, so as to cover the ground, about six inches apart with a path for the pickers, the best possible yields can be secured, but these results can only be obtained by considerable outlay.

*What is your opinion about hill culture of the strawberry?*

While this is the ideal method of growing strawberries it is practiced far less than in former years. It is a very expensive method, and can only be adopted by those who have an abundant supply of labor, and who have a fancy market which takes large berries at high prices. Other methods as a rule are more profitable than hill culture, but if I were growing in a garden for my own use, I should have at least a few rows growing in hills for the pleasure I would secure, and the astonishment of such friends as came to see me.

*Do strawberries thrive in the shade?*

If they could enjoy partial shade without being robbed by the roots of trees, as is usually the case where shade is given, they would do better than in the open sunshine. We cannot expect the strawberry to succeed where apple roots and the roots of other trees occupy the soil.

*Does the superior quality of a fruit cause it to sell for a fancy price?*

Earliness, size, beauty and quality, are the essentials in a market berry, yet, notice that I mention quality last, whereas, in a pomological sense, it ought to be mentioned first. Fruits are purchased from their appearance, and yet if they do not prove satisfactory in quality, the purchaser is discouraged from buying again, whereas, if they are of high quality a much larger quantity will be consumed.



*Where do you market your strawberries?*

I have supplied our city for the past fifteen years, and have always been able to market a large amount of fruit there at good paying prices, having secured a reputation for fine fruit. Of late years I have increased my plantation to such an extent that I am obliged to ship a portion of my crop to distant points. I advise every one to encourage their home markets and to make the best of them, for they are as a rule, the most profitable and the most reliable. There are many who ship their berries hundreds of miles, when by proper management they might have sold them all near home.

*You ship berries in refrigerator cars, I presume?*

Yes, refrigerator cars are indispensable where strawberries are sent several hundred miles during hot weather. By this method they are often shipped a thousand or more miles, sometimes occupying sixty or more hours to complete the journey. Strawberries have been kept a week or more in ice houses, and removed in fine condition.

Large shippers often have a cooling house where fruits are placed when first picked, and from whence they are removed to refrigerator cars. Strawberries perish rapidly in a hot muggy atmosphere. Our wagon loads of berries, intended for the city markets, are not placed in closed buildings, but left where a free circulation of air can reach the fruit, leaving the cars open and the fruits exposed as much as possible at night. There are few better places than out in the open air, provided your wagon is protected against the storms.

#### FORCING THE STRAWBERRY UNDER GLASS.

*Have you had experience in forcing strawberries under glass, in winter?*

I have, in a small way; all varieties do not succeed. The Sharpless and Triomphe de Gand have done well with me under glass. The plants are laid in pots early in the season and the pots plunged in the ground to their full depth and watered frequently. When the autumn frosts appear, a cold frame is placed over the plants, the sashes being covered, during the severe cold weather in January, the plants are removed to the green-house, and kept in a temperature of sixty degrees in the day time, and forty at night, but at the blossoming the temperature should be increased slightly. The plants must be kept in vigorous growth by frequent applications of liquid manure and by close attention. While there is not much profit in such forcing there is much pleasure in it for those who have a taste for such enterprises.

*What fertilizers aside from yard manure, have you used?*

I have found nitrate of soda desirable for increasing plant growth, and I must consider that whatever adds to the vigor of the

plants, must help the crop of fruit. The phosphates are slower of operation, but desirable to help fill out where short of other fertilizers; wood ashes are a superior fertilizer for strawberries, also bone dust, but the latter is exceedingly slow in its operations but very lasting in its effects. My practice has been to apply Commercial Fertilizers after planting, at frequent intervals, not very much at one time, being careful not to let it touch the leaves.

*Does the strawberry succeed best in a firm or a loose soil?*

A firm, hard soil, is favorable to the strawberry, if the surface can be kept from baking. The trouble with such soils is, that they are naturally grass lands, and will seed themselves, and form a meadow in a short time if left uncultivated, whereas, sandy soils are not so much inclined to grass, and yet are more inclined to some other kinds of weeds than clay; yet sandy soils are much more easily cultivated. It is a disputed question whether sandy loam, or clay loam is the best; but I prefer a happy medium between the two, one not light or too heavy. Clay lands are more liable to heave than sandy lands, as they retain the water better.

*Do you practice spring cultivation?*

Yes; but I am very careful to give very shallow cultivation in the spring, with plants that are expected to bear that season. A field of strawberries, planted last spring, later in the course of the year covered the entire surface with roots, but many of them are too small to be observed, therefore the fact is not noted by many. Of course the deep disturbance by a deep running plow or cultivator, would destroy many of these roots, but if the season is favorable, the roots will soon form again; it cannot be considered desirable to molest the roots the bearing season however. With strawberry beds it is often a serious question whether to cultivate between the rows the bearing season, or to omit cultivation entirely; also, in new plantations, where there are always more or less weeds, the question is, how shall they be suppressed? Many of the best growers go through the rows with a hoe, using no other tool, simply skimming over the surface; others run a shallow cultivator between the rows. I have seen the ground spaded a foot deep between the rows of strawberries the growing season, and yet the plants yield a good crop of berries. The fact is the strawberry is a vigorous and persistent plant, and will succeed under adverse circumstances.

*Do you order plants by mail?*

Yes, I often order new varieties by mail from a distance, and always get them in good order. In addition to the price of the plants, I always remit enough money to pay liberally for postage, requesting that a little soil be left on the roots, that abundant moss be used, and that the package shall not be wrapped too tight. Strawberry plants are

always shipped in a growing state, and air must not be excluded. If I scrimp on the amount sent for postage, I know the nurseryman must scrimp in the packing material, to make the package light, or else pay the extra postage himself, which he may justly decline to do, for it requires skilled labor to prepare a package of plants for mailing a long distance, and this alone, is enough for the nurseryman to bear. Twelve strawberry plants are often mailed for ten cents postage, while if packed to go safely, twenty cents should be paid, or twenty-five cents, if going to remote territories. I usually get my package of mail at night, yet always unpack the plants and go out in the dark with a lantern and heel them in the damp soil. A plant out of the soil is like a fish out of water, and must go back to the soil at the earliest possible moment. My Sharpless plants, when worth \$2 for twelve, came in a dry hot time. I placed each plant in a twenty-four inch pot, kept them in a shady place, and watered daily for two weeks, at the end of that time a fine rain came, and I planted, finding that new root had formed. I thus secured potted plants. Not one of them died, and from that dozen I secured all my stock, and sold many to my neighbors.

*You consider the mail is doing a good service in forwarding plants then?*

Yes. Were it not for the cheap mail service, improved fruits would not get into the hands of so many growers. The mail delivers to Oregon, Washington Territory or to any distant point, at the same price as at a neighboring town. This enables pioneers in newly opened territories an opportunity to supply their garden and start fruit farms and orchards at low cost, as small trees can be sent safely by mail also.

### Irrigation of the Strawberry.

*Is it true that the strawberry requires an abundant supply of water?*

Yes. All plants and trees consume water in large quantities. Sir John Laws discovered that an acre of barley, will take up 1,094 tons of water in two days. Trees and plants are composed more largely of water than any other substance. The branch of a tree will lose nine-tenths of its weight by drying. Plants and trees have great capacity for absorbing water from soil that appears to be perfectly dry as well as that more moist. Water is absorbed through the finer roots (called root hairs) which are not possessed by aquatic plants; these root hairs, are often too small to be perceptible to the naked eye. If the soil is water-soaked, through lack of drainage, the root hairs perish, and the plants may die through lack of water, with water all around them, like shipwrecked sailors on the sea. The extent of root growth is remarkable in all plants and trees, covering as large an expanse as the foliage and branches and often

much larger. A large tree will throw off through its foliage over fifty barrels of water on a summer's day. While the strawberry abhors a water-soaked soil, it will not thrive where a supply of water is not present. Aside from the large quantities of water that escapes through its leaves, its fruit is composed largely of water. Consider a thousand strawberry plants growing on a small plat of ground. They may pump into the air daily a barrel of water, and the ripening fruit may contain a half barrel more. It will be seen that the strawberry cannot conduct its business successfully without moisture. The soil however has a wonderful capacity for retaining and giving out moisture, water that passes far down into the earth in wet seasons returning to the surface in seasons of drouth to supply plants. There are seasons, however, when the strawberry suffers severely from lack of moisture, and many experiments in irrigation have been made, more largely in Colorado, and California.

*Have you had any personal experience in irrigation?*

Yes. I once planted a field of strawberries adjacent to a brook with the intention of irrigating. Being on low ground the early blossoms were destroyed by frost, but those that appeared later giving promise of a harvest, I dammed the stream during a dry spell, a week before the berries began to ripen, and turned the water on the plantation. A furrow was plowed across one end of the field opening into other furrows leading between each row of strawberries. There being an abundant supply of water the main ditch was soon filled and in a few moments the stream was rippling between every row in a manner to satisfy the most devoted enthusiast. Onward the waters rippled and tumbled, glistening in the sunshine, now partially hidden under the leaves, now appearing in full view, until at last all was absorbed in the thirsty earth. We allowed the water to run thus for twenty-four hours, a much longer period than was necessary, yet the strawberries seemed to enjoy the treatment. Corn and potatoes, however, growing adjacent, turned deadly pale and came near giving up the ghost. At intervals the water was again turned on, and the strawberries did not for a moment go thirsty. Picking was delayed on this field until quite late, our attention being turned toward other fields, but when at last a large bevy was directed there, great was their delight at the sight which met their view. Adverse as were the circumstances the ground was ablaze with the large and beautiful berries lying often one upon another, so bountiful was the yield. The quality however was not equal to those not irrigated, and the berries were quite soft, but this may have been due to their remaining upon the vines until over ripe.

*Would it pay to draw water with teams to irrigate strawberries on upland?*



No; for the amount required is something astonishing. I once introduced a new strawberry of remarkable promise, and desiring to increase the plants rapidly, secured an immense water tank like those used in large cities for sprinkling the streets. This cart I filled repeatedly with water and propelled it up and down the field, thus getting a faint idea of the amount of water that ordinarily falls during a summer shower, and realizing how much easier the Almighty waters the earth by conducting the waters over our heads in vapor, than man with his bungling carts. A cart load of water that would tax a strong team to its utmost capacity, would not thoroughly soak the ground over an expanse the size of an ordinary dining-room. Aside from this, irrigation is done during dry spells, when the sun is beating fiercely upon the earth, causing the wet soil to harden and crack before dry enough to cultivate, whereas, after nature's irrigation the soil is dried more gradually, the earth being shaded by overhanging clouds.

*Then your experience with irrigation is not encouraging?*

My experience leads me to practice mulching, or keeping the soil frequently stirred. These two methods are the most economical for us at the East at the present time for keeping our plants in a growing and fruitful condition.

Mr. A. N. Cole of Wellsville, N. Y., has a novel method of irrigating plants by means of underground trenches, particularly suited to hill sides. I was sent to his place last year by the New York Tribune to make a report of his methods. I saw there some of the largest and most beautiful strawberries it has been my pleasure to visit and taste, but I could not help thinking that if he had omitted the extra cultivation, fertilization and mulching of forest leaves, his exhibition would not have been so successful. Nothing is more pleasing to the strawberry than sporting over well drained soil. Thorough drainage is of itself a species of irrigation, and strawberry growers cannot indulge in it too freely.

### The Poor Man's Berry.

*Why do you call the strawberry the poor man's berry?*

For the reason that it yields more profit to the poor man than to his rich neighbor. Much is said of the advantages of the capitalist, but the strawberry saves her prizes for the poor man, with a family of children, who cultivates half an acre near the village. Poverty prevents his expending his energies over a twenty-acre lot. He confines himself to a small area of rich garden soil, giving clean and frequent cultivation. There is scarcely any limit to the yield he may secure, often as many quarts as his rich neighbor gets from his broad acres with ten

times the amount of labor. When picking time comes, the poor man's children and wife gather the berries early and late, while the rich man must put up with such pickers as he can hire, who come late and return early, mashing as many with their boots and teeth as they pick, and often sitting rebelliously perched upon the neighboring fences, permitting the fruit to perish. The poor man is the first in the market, getting the best prices. His customers continue to buy of him, for his berries are fresh picked and tempting, and they know the man who grew them, and that he is poor, industrious and deserving.

*Is there any crop that will prove more profitable to a poor man who owns an acre of garden soil?*

There is none more profitable. The strawberry is one of the most productive plants, and its fruit is among the most marketable products. I claim that there is no occupation of the soil that may be made so profitable to the villager or farmer as when planted to strawberries, providing he pursues approved methods. Like other enterprises there will come seasons when profits will be cut short for one reason or another. The way to estimate profits is to figure the average of several years good and bad as they come.

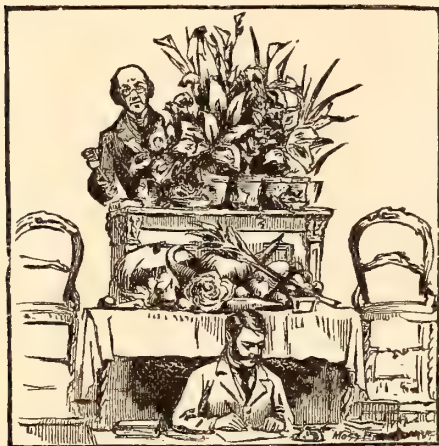
*Why do not poor men more often plant strawberries for profit?*

Many are not sufficiently enterprising. While there are many who are poor from misfortune, the larger number are poor from not having accepted such opportunities for adding to their store as occur to all men at frequent intervals. They have failed to take a strong grip at fortune's wheel when opportunity rolled round to their side. But many are so poor that they must plant crops that bring returns within a few weeks after plowing, and strawberries bring no revenue the first season after planting except where plants are sold, as often might be the case, if valuable kinds were set. But this is hardly an excuse, for there are none so poor they could not plant a dozen strawberries, and from these gradually increase their bed. Again there is no class so inclined to ruts as the poor. They have relied upon days' work so long for supplies, the possibility of earning money by other methods seldom occurs, yet how much dignity would they gain by securing profit from the development of their personal resources. When a man begins to work and plan for himself, he holds his head higher, and steps quicker, has more sparkle in his eyes, and more money in his pocket laid by for a rainy day.

*But poor men have no horses often, with which to cultivate and carry to market.*

A horse is not a necessity though often desirable. There are women near Rochester, N. Y., who cultivate strawberries in their gardens and market them without a horse, selling the fruit from door to door in light

baskets holding twelve or more quart cups. These women usually grow the largest and best fruit and get fancy prices. There are wheelbarrows now made with springs that would carry berries nicely. Where there is a will there is a way, in berry culture as in all else. But where a man is equipped with baskets and carts he should make them available by having a few raspberries, blackberries, currants, grapes, etc., to follow. His customers for strawberries will be his patrons for all of these fruits.



### The Sleepy Hollow President's Talk About the Strawberry.

Strawberry growing is overdone Mr. President. I am clear gone discouraged—had to sell at four cents per quart last year.

You will probably plow them under and plant corn to feed pigs, which you will sell at five cents per pound, and get rich that way.

I don't know what I shall plant in the place of strawberries, but I do know they are selling too cheap.

You sold your earliest strawberries at eighteen cents, later at fifteen cents, then twelve cents, ten cents, and so on down. Your average was a good one for the worst season ever known. Before plowing them under figure an average of your prices and profits for the past five or ten years. You will find a good average price, better than other crops have yielded. Your talk about the business being overdone is bosh. It may be in a few localities, but the country at large is poorly supplied. I rode through 2,000 miles of the West and Northwest recently, keeping my eyes wide open for glimpses of fruit from the car window. According to your view the strawberry blossoms by the 1,000 acres throughout that fertile country, but I did not see a patch of one acre in extent in the entire trip, and not ten acres in all combined. I was

struck with the dearth of fruit of all kinds. I tell you sir the country as a whole is destitute of fruit. Not one person in one hundred has an adequate supply.

*Why were prices so low the season of 1885?*

The leading cause was the poverty of the working people, who are the large buying class in cities and villages. The early berries were sold at high prices to the rich, but when the bulk of the crop came in, the reduced purchases of mechanics and operatives of closed factories was felt, and prices fell. There are twenty working people who eat fruit to one rich one, and last year was a hard one for the poor. I grew strawberries last year for market. I was obliged to send teams further and to accept lower prices than usual, but the result was quite satisfactory, profits being good in comparison with other profits during the hard times of 1885.

*You have always made the strawberry a hobby?*

Of course I have, it is the most wonderful berry on earth. It is appreciated no better than apple blossoms, fresh air and sunshine. Half of our people never saw a good strawberry, and not one in 100 knows how easily they may be grown. Why it will pay to grow them in a bed on a lawn for ornament alone, not mentioning their attractions on the table and from the hand. What is more attractive in blossom? And as for the berries, lots of plants are grown for ornamental fruit that are not half so beautiful. Watch my children hunting for the fresh ripe berries. What screaming and shouting. And when the first dish is placed upon the table what smacking of lips in anticipation. Did you ever see a family tired of strawberries? My family continually lament the day when the last one will be gathered, their appetites continuing like that of a man fond of the bottle. But it don't kill them off like the bottle. No sir; but it is death on the doctors. Doctors have learned to whip up and drive on fast when they smell a large bed of strawberries in a former patient's garden. Some people point to the sun, the moon and the stars when speaking of the creative power of the Almighty, but I point to the strawberry. There are many who can build a house who cannot construct a watch. The strawberry is one of God's watches.

BAD NAMES FOR BERRIES AND DOGS.

*What do you think of the Jumbo strawberry?*

The name is bad enough to disgust a Feejee Islander. The idea of giving the name of a heathen deity, or stupid elephant to the most delectable fruit ever created is barbarous. It is like naming your baby boy Judas or Beelzebub. I am set against inappropriate names for all fruits, especially



for the strawberry, the most poetical and suggestive of all. There was once a strawberry named Big Bob, in an unguarded moment, or by some enemy. This Big Bob was really a good berry (though few had it genuine) but the name was too much for it. Perhaps polite people objected to sending their children out to gather Big Bobs, or hesitated about offering their guests dishes of Big Bobs, fearing disastrous consequences, or other vulgarities thus engendered. Whatever the cause the B. B. strawberry faded away with neglect and is heard of no more, reminding one of the old adage, "Give a dog a bad name and kill him."

*How is it the wild strawberry survives in the grassy fence corners, while we must give our improved kinds such careful attention?*

We give improved varieties high cultivation because we desire astonishing results, not because it is necessary to keep them alive. Both cultivated and wild strawberries will hold their place in the soil often for ages, runners taking root along timothy and other grasses, bearing blossoms and fruit annually in a small way.

#### DISCUSSION OF VARIETIES.

*What varieties of berries are your favorites?*

The Crescent, Downing, Sharpless, Manchester, Cumberland and Woodruff have done best with me, of the kinds well tested, yet there are many other varieties that have given astonishing results and I should have continued their culture were it not that it is unprofitable to cultivate a large number of varieties. I would not advise others to be governed strictly by this selection, for in their localities other varieties might succeed better. For the home garden Downing, Sharpless and Woodruff, of the older kinds, are valuable on account of their quality as well as vigor and yield. While we are apt to consider only firm berries suitable for marketing, I notice that the Crescent, which is a soft berry, is among the most popular.

I have just returned from a visit to a specimen bed of strawberries growing in my garden, made from potted plants placed there last August. There are only three or four plants of each kind. The soil is not very rich, but in a fair wheat or corn growing condition. As regards growth Downing stands at the foot of the list, Sharpless next, and Crescent and Park Beauty (considered to be identical varieties) next. Wilson, Boon, Sucker State, Daisy Miller, Cornelia and Bidwell all ranking vigorous and about on a par with Crescent; Iron-clad, Connecticut Queen, Surprise, Neal's Tardy, Jumbo and Hathaway being next in vigor. The Manchester and Surprise are the most vigorous of all. The Prince of Berries makes a small growth, but is well supplied with blossoms. The same

may be said of Atlantic, Bidwell, Downing and Sharpless, which are ordinarily vigorous growers, but their end of the row was slightly shaded by an apple tree to which their feeble condition may be attributed. This specimen bed is partly in blossom and partly in immature fruit. My experience has taught me that it is not safe for me to judge of the strawberry in this condition as regards productiveness, for some strawberries make a big showing in this condition, while the harvest is comparatively insignificant, some varieties having a wonderful capacity for developing even the smallest and latest berries to large size, while others produce a few large berries while the others are hardly worth picking. Iron Clad makes a great show of blossoms and the crop, while satisfactory, is not remarkable; Manchester is full of blossoms and it never fails to develop its fruit with me, ever proving profitable and desirable, the only fault being softness of berry, and tendency to leaf-blight. Bidwell is full of blossoms, and when given good culture (and I think it should be always planted in hills,) it has given me astonishing results. The fruit is of fine quality, remaining on the vines a long time without decaying. Sharpless is without doubt the largest strawberry of those well known. I saw them growing at Mr. A. N. Cole's at Wells-ville, N. Y., during my visit to his place to report on his New Agriculture. It produced the largest berries of all the varieties he had growing. One plant produced such a large number of large berries that Mr. Cole called it his "hen's nest," each berry being nearly as large as a hen's egg.

Woodruff is one of the newer varieties that has done remarkably well. While the plant is not exactly vigorous, it is healthy and productive. The berries are of superior quality, very large, dark deep red, and the firmest berry of good quality I have seen. Prince of Berries is the best in quality of all strawberries, so far as my taste can be relied upon. The Old Wilson is worthy of comment, for no variety has done more to popularize strawberry culture. It is indeed a remarkable variety, possessing great vigor and endurance, yielding large berries with good culture, and plenty of them; but as generally marketed it is exceedingly sour and uninviting as it turns red before it is fully ripe, but if allowed to remain on the vines until thoroughly ripe and soft the quality is improved to a remarkable extent and may be enjoyed by those of cultivated taste. A large number of strawberries have been tested on my grounds and discarded, simply because there was so many new varieties being continually offered I could not cumber my ground with them. So fast did the new varieties appear, that there were doubtless many discarded that were not sufficiently tested to establish their merits. On my place the James Vick



has under favorable conditions proved a most valuable and prolific strawberry. It is however capricious and cannot be relied on under all circumstances. When grown in hills I have found it a firm productive berry, of regular form and good quality, though on other soil it is considered deficient in quality. The plant possesses great vigor and beauty.

*What is the cause of varieties of strawberries running out?*

I am not a believer in varieties losing their productiveness and vigor with age, but think the apparent cause is the growth of seedlings that spring up in old beds, where decayed strawberries have fallen. These seedlings often have the peculiarities of the parent plant and yet vary somewhat. I once saw a lot of seedlings of the Sharpless, all of which in foliage and fruit resembled its parent, and yet, most of them were inferior. Supposing there is one seedling growing in a bed of strawberries, self-propagated, we can see the result when planted with its companions in a field or bed used for propagation and dissemination. The varieties become mixed with the inferior variety resembling the original. As years go by the mixture grows somewhat serious, and in time we hear of the variety running out. Aside from this the variety may become afflicted with some fungoid disease or insect enemy, which is carried from one plantation to another and distributed on the plants, while new varieties grown in isolated localities are not thus afflicted. This is another cause of what seems to be the decline of the older varieties. I am propagating a strain of plant of remarkable vigor and productiveness, all from one plant of the Wilson.

*Why is it that pistillate strawberries will bear a small crop of strawberries, and often a good crop, when entirely isolated from fertilizing blossoms?*

I cannot state positively. I am interested in this question and have studied it somewhat. I have grown good crops from pistillate varieties where there were no fertilizing blossoms within a quarter of a mile. When pistillates are grown near perfect flowers it does not seem reasonable that every flower should be fertilized but such is the case, which holds to the inference that they are not entirely dependent on pollen from other blossoms. Dr. Lindley entertained peculiar views on the sexuality of strawberries, claiming that he had gathered strawberries on his own grounds that were entirely pistillate and isolated. It is not reasonable to suppose that bees visit every blossom, but more reasonable to suppose that they may omit some, yet examine a plant of the Crescent containing a hundred blossoms and you will probably find every one of them well fertilized, if growing near perfect varieties. Doubtless pollen is carried in the wind. The bees always travel long distances carrying pollen, but

at best we must acknowledge that there is some communication between plants that has not been discovered by the most acute investigators. Indeed what we do not know about plants and plant growth far exceeds what we do know. How many scientific men there are investigating the structures of the animal kingdom. One man studies the eye, another the heart, another the ear, another the lungs, each spending a life-time at his work and still being dissatisfied with the result. Who is studying the vegetable kingdom with such assiduity? We have experiment stations where scientific men are conducting experiments and arriving at valuable conclusions, and yet the field is so broad, the amount of time and labor so vast we seem to be creeping along but slowly. What we need is a thorough investigator who shall be paid by the government to make a special study of features of plant growth. It is time we knew more about them. There is no way that money could be so profitably employed by our government as in the line above indicated.

*What fertilizers do you use for the strawberry?*

Anything that will make the soil rich. The strawberry is a rank feeder and requires a good rich soil, but it is not at all delicate in its taste, thriving upon anything that is available, providing it is well incorporated with the soil and thoroughly rotted before planting. I have known one hundred loads of barn-yard manure to be drawn upon one acre of soil on which strawberries were to be planted the next year. Such an amount of manure applied the same season the strawberries were to be set would not be desirable. One disadvantage in applying yard manure is the foul seeds it contains, thereby re-seeding soil that may have been previously subdued. I once spread upon a field that I had given careful attention, and that did not contain a single weed, several loads of scrapings from the barn-yard, which appeared to be precisely the thing needed. In a few weeks I found the entire plantation thickly seeded to June grass. The season being wet I was not able to conquer this pest and the plantation was entirely ruined.

After the field is subdued and planted I would not apply manure, or even straw or anything that contained the seeds of foul weeds, but would apply instead ashes, bone dust, phosphate, nitrate of soda, or any commercial fertilizer that has proved beneficial for other crops, being careful not to touch the foliage with the material. Frequent applications of fertilizers seem to give better results than large applications less frequently. I have known oil meal and wood-ashes to be spread about the plants with benefit. The value of wood ashes as a fertilizer is estimated by Dr. Kedsie, of Michigan, at four times the value given by the Connecticut experimenting station. The

## Pruning and Training the Vine.\*

BY E. WILLIAMS, OF NEW JERSEY.

From the long and somewhat extended observations I incline to the opinion that there is no operation of the fruit garden so little understood as this one of pruning the vine. Notwithstanding all that has been written and published, the masses are still ignorant. Whether this is due to the ambiguity of instructions given, or to the carelessness and thoughtlessness of the readers, I am unable to say. Not one in twenty owners of a few vines understands the subject well enough to do his own pruning. I once heard the president of a prominent farmers' club say that he had read all the standard and current publications on this subject, and yet had not the ability to prune his own vines, always hiring it done.

I find also that the so-called professional gardeners, and those who make a business of pruning vines in their respective neighborhoods, often exhibit a lack of intelligence in their work, their aim apparently being to cover the trellis and get a shade as quickly as possible. These vines are then allowed to care for themselves until the next annual pruning. Pruning for shade is one thing; pruning for fruit another. As a rule, too much wood is left. It is common to err in this direction. Excessive growth of wood in tree or vine is not conducive to fruitfulness; yet the latter is dependent on vigor and health and their attendant conditions.

An expenditure of all energies in one direction for the attainment of a single object in life is to neglect others of equal importance. The formation and development of fruit buds may be likened to the halting of a railroad train for wood and water; and the development and maturity of the crop of fruit to the delivery at its terminus of its load of passengers accumulated along its journey. If the load be excessive, beyond its ability to carry, relief by unloading or some other method must be had, or the train will come to a full stop between stations.

A proper balance of the vital forces, a due consideration of the ability and capacity of the vine, is of great importance. The development of fruit is where the strain comes, and the impatience and haste to get fruit quickly and plenty of it (national traits of the American people) are the prime causes of many a failure. Vines are allowed to overbear, especially when young. The demands of the fruit exceed the ability of the vine to supply them. The new wood near the base of the vine is robbed by the excessive demands of its more vigorous neighbor beyond, and failing to ripen, death

is the inevitable consequence; and in a few years, if not renewed, the fruit-bearing wood is at the top of the trellis or at the extremity of the vines. The novice, before attempting to prune a vine, should bear in mind the following facts and principles:

*First.* That, as a general rule, the fruit-bearing canes of this year are grown from buds on last year's canes; in other words, the wood of this year contains the buds which produce the fruitful canes of next year.

*Second.* That the fruit buds differ from wood buds only because of better development.

*Third.* That a cluster is a fruitful tendril, and that the ordinary capacity of a fruitful bud is to develop, on an average, two or three of these fruitful tendrils, or as commonly expressed, clusters of fruit.

There are, however, exceptions to this rule; notably, five or six clusters on a cane of the Elvira being quite common.

*Fourth.* That the tendency of the sap is to the extremity of the vine; that the straighter the cane the more rapid the growth, and the strongest growth from a pruned cane will generally be found nearest the end.

*Fifth.* That it is an easy matter to overtax a young vine by endeavoring to make it produce and ripen more fruit than it is capable of doing. A young vine cannot yield the crop that an older, matured vine can without injury, any more than a young boy or girl can do the work of an adult; and it is as unreasonable to expect it in one case as in the other.

It is said that "order is Heaven's first law," and the owner of every vine ought to possess enough of that divine quality to be able to adopt some system for pruning it. A few years ago I happened to call on a gentleman who boasted of his profitable grape crop, which he had just sold at two or three cents a pound on the vines. He had but a few vines, but an acre at that rate, he thought would be profitable. In reply to my inquiry as to his system of pruning and training, he replied he did not understand the science of it. They were on an arbor, and in the spring he took a grass hook and clipped off the ends of the young canes where they were so long as to be in the way. "Come and see them!" I did so, and, of course, expressed myself gratified to learn he could grow satisfactory crops under such conditions, but mentally concluded I could not and should not adopt his method. The following season I met him and anxiously inquired about the condition of his grape crop. His reply was, "A failure. Did not ripen at all." I was not disappointed. I could not see how it

\*The above, by Secretary Williams, before the American Horticultural Society, is the best treatise of its kind ever written. Mr. Williams is a practical grape grower who has met with marked success. I offer his methods with confidence, conscious of his long experience and sterling integrity.



could be otherwise. The fact is, such slipshod methods do not result in giving prize clusters or premium crops, however satisfactory they may be to the grower in other respects. This will apply to other crops as well as grapes, and I think I may venture to say it is *one* rule to which I will take no exceptions. It is true, we sometimes hear of great crops taken from vines allowed to care for themselves, but I have never known any to do it year after year, and if any one has received an award of a gold medal or silver plate from this or any kindred society for exhibits of this kind, it has escaped my notice.

The elementary principles relating to the vine already named ought to be so plainly understood that every person of ordinary intelligence, who is the possessor of a single vine, should be able to prune it with some degree of accuracy.

The eye is often a quicker and better conductor of ideas than the ear; and as I shall have occasion to appeal to both of these senses as I proceed, I will now ask your

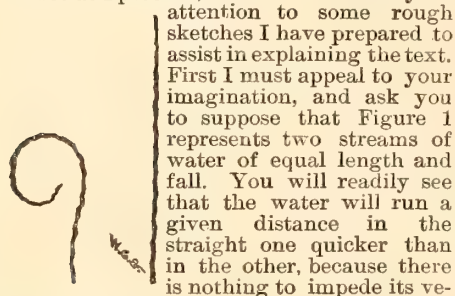


FIGURE 1. locity.

attention to some rough sketches I have prepared to assist in explaining the text. First I must appeal to your imagination, and ask you to suppose that Figure 1 represents two streams of water of equal length and fall. You will readily see that the water will run a given distance in the straight one quicker than in the other, because there is nothing to impede its velocity.

Now we will suppose them to represent two vines. The sap will flow up the straight one faster than in the other, because the bending in the latter contracts the sap vessels and impedes its progress. If we cut the erect cane off at five feet high, the upper buds will make the strongest growth. The habits and characteristics of vines are so variable and the systems of pruning and training so numerous and susceptible of so many modifications to suit the ideas and whims of the individual, that it would be folly to designate any particular one as the best for all, as occasions and circumstances may exist when any one of them would be "more honored in the breach than in the observance."

I shall therefore content myself with noticing a few, including my own practice, and give the reasons for the faith that is in me.

The pruning of a vine should commence before it is planted. In vineyard practice I set a stout stake where every vine is to be planted, for the purpose of supporting not only the vine but the wires of the trellis. To add to the durability of these stakes, the

bottoms should be coated with coal tar, crude petroleum, or something of like character.



FIGURE 2.



FIGURE 3.

I plant a vine at each stake, shortening the roots to about ten or twelve inches, and the top to three or four buds. As these buds start I select the strongest one, rubbing off the rest, and keep this one tied to the stake as it grows, and pinch off all laterals, as they appear, to one leaf. By thus concentrating all energies of the young plant (Figure 2) into one channel I get a single cane of far greater value than all would have been had they been allowed to grow. The next season this cane is cut down to three or four buds, and unless it made a growth of three feet or over, only one cane is allowed to grow the second year; otherwise two are grown and treated as before. Sometimes a vine, owing to favorable soil, or excessive inherent vigor, will

grow sufficiently strong to be ready for the trellis at one year's growth, but ordinarily two years are required.

It now becomes necessary to decide on the form and style of trellis and the system of training and pruning to be adopted. A once popular, and still prevailing style to some extent, is shown in this sketch. (Fig. 4.)

In most, I may say all, cases of old vines of this character that I have been called on to prescribe for during the past few years, the bulk of the young wood was at the top of the trellis. If, perchance, a young shoot had started from near the ground and made a rampant growth, and the pruner had courage enough to cut out an old cane, the new one was carried in its place to the top of the trellis and there cut off.

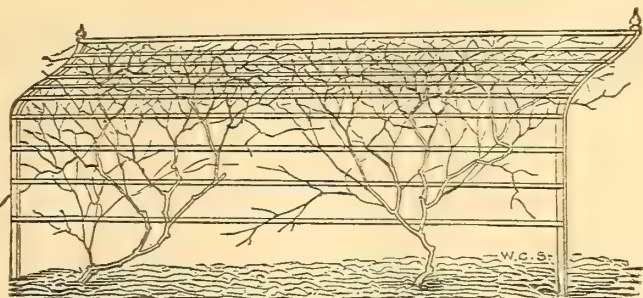


FIGURE 4.

Figure 6 shows the vine at the end of the season, and the crossmarks where to prune.

It is a very neat, tidy and satisfactory method if properly attended to, especially for amateurs. In practice, however, it has been found too much labor for vineyard use to be profitable at the low prices ruling for the fruit for the past few years.

In Mr. Fuller's trellis, Figure 6, the wires are run vertically and put on to accommodate the buds. The height is four to five feet, more or less, according to the taste or fancy of the grower. The pruning in this system is what is known as short spur pruning. The upright canes are cut down to two buds the

first year. The next year two canes are grown, and at the next pruning the upper one is cut entirely away and the lower one to two buds. Thus two canes are grown every year, and the annual pruning thereafter is the same.

Here is a style of trellis (Figure 7) I saw in use at Vineland the past season for thousands of vines. It consisted of one wire, supported on stakes two and one-half feet high. It is simple and inexpensive, to say the least, and so low that a man can readily step over it, and is not easily affected by winds.

The buds on these young shoots, for some distance from the base, were small and poorly developed, the sap having rushed past them too rapidly to properly develop them as fruit buds; consequently they start feebly, the ascending sap accumulates in the buds at the top, pushing them into vigorous growth, densely shading and impoverishing those below. The consequence is, in a year or two at the most, the young cane is as naked as the old one it replaced. The chief result of this system is little fruit and much shade, and is fast giving way to other and better methods.

In these diagrams, Figures 5 and 6, I endeavor to illustrate the Thomery, or what is more commonly known in this country as the Fuller system, from the fact that that gentleman, in his book on grape culture some years ago illustrated and recommended it, so that it became exceedingly popular.

Figure 5 shows the vine at the beginning of the third season, with the arms in position.



FIGURE 5.

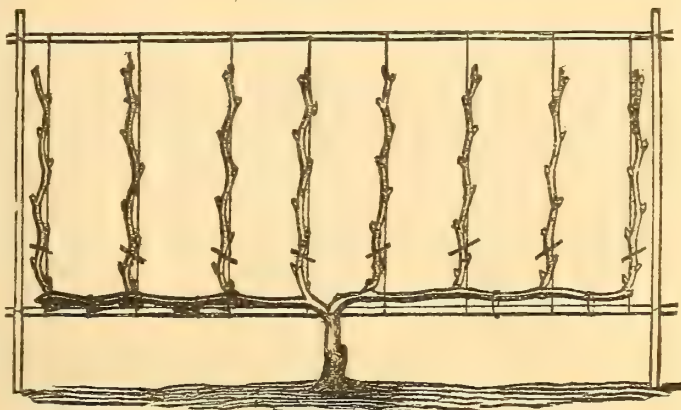


FIGURE 6.



Figure 8 shows the style of trellis I use. It is also the one in general use in vineyards in the Hudson River grape region, having superceded the Fuller style on thousands of acres. It is what is popularly known as the Kniffin trellis. My lower wire is three and one-half feet from the ground, and the top one five and one-half feet, but this is a matter each one can regulate for himself. A very desirable feature which recommends it to me is the facility afforded of readily passing under it from one row to another.

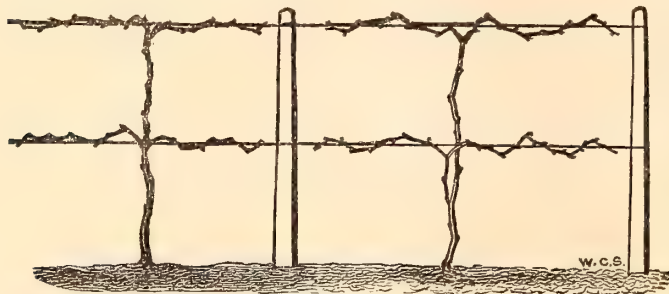


FIGURE 8.

While the fruit on the lower wire fails to get the effect, beneficial or otherwise, of the radiation of heat from the ground that it would if lower, my theory is that it gets a better circulation of air and is less liable to mildew and rot, though I have had enough of both these afflictions for two years past to satisfy my desires in that direction for all time to come.

The Kniffin system of training and pruning is, as is shown in the vine on the left of the figure, to start two arms at the first wire and two at the top wire, rubbing off all buds between and below the wires, except the four needed for the arms.

If the vine has made a good growth the first season it should be cut off just above the lower wire. A bud on each side is trained along this wire for the lower pair of arms, continuing the top bud on the top wire, rubbing off all others. Why not cut it off at the top wire and grow all arms at once, you ask? Because, if cut there the strongest arms would be there, and you might fail to get good ones at the lower wire; but if cut at the lower one you are sure of good arms there to start with, which you are not sure of in the other case.

My theory is, (and sometimes I have had the facts to prove it.) that, owing to the natural tendency of the sap to the top, as heretofore alluded to, its course being unobstructed up through one cane, it would not stop in sufficient quantity at the lower arms to supply them with their due share, but hastening on to the top, where it must stop, results in giving the strongest wood

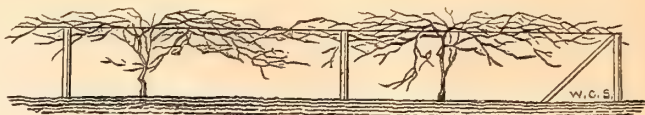


FIGURE 7.

growth at that point. To avoid that, I grow the two canes the second season, as heretofore stated, from near the ground, and divide the current of sap at that point. (See vine on the right of Figure 8.) These canes, on reaching the wires, can be pinched off, thus forcing out two lateral buds, to be trained along the wires for arms, or they

can be bent down along the wires for one arm, and allow the lateral starting nearest the wire to form the opposite arm, thus forming the arms the second season.

Figure 9, from a photograph, shows a vine of this character. The short vine was pinched off at the lower wire, the arms coming from the laterals, the main cane of the long vine furnishing one arm for the top wire, a lateral the other. I have had vines the second season from planting make the trunk and arms complete, with wood to spare, but they were exceptional cases. On the other hand, I have vines of feeble growth that have been five or six years trying to make a respectable appearance, and have not done it yet, another proof that there are occasional exceptions in all cases.

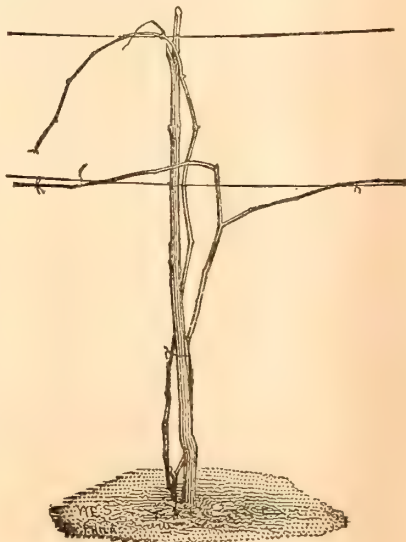


FIGURE 9.

In pruning, I generally shorten the arms to five or six buds, rarely more, sometimes less, dependent on my judgment of the vigor and ability of the vine, and sometimes I make a mistake at that.

The bending of these arms into their position on the wires tends to retard the flow of sap, and favors a uniform growth of the buds along the entire arm, it is so short; whereas if it were ten buds long, instead of five, the buds nearest the main cane would start feebly, if not fail altogether. That is just where many failures have occurred in the Thomery-Fuller system, before described, in attempting to get too long an arm in one year.

The annual pruning thereafter is to cut away the entire arm, except the branch nearest the main cane. This is bent around and tied to the wire, shortened in to five or six buds, and is the new arm replacing the old one.

The simplicity of this system, and the little labor attending it, are its strong recommendations, and the natural droop of the canes also tends to check its growth; yet it has some objectionable features. The young shoots of strong growing varieties, when growing at a 2:40 rate, have a feeble hold on the old wood, and are liable to break off with a stiff wind or a heavy shower. In cultivating, if the horse switches one with his tail, or gives it a slight bend in the wrong direction, off it goes, and often they are the ones you would like to have saved. To remedy this, I have had good results by running a wire through the posts six inches above the one to which the arms



FIGURE 10.



FIGURE 11.

are fastened, on one or either side the same distance above. The young shoots are tied to these, affording the necessary support. On one side of my vineyard there is quite a descent, so that I find it desirable to cultivate both ways to prevent washing. I therefore dispense with my lower wire and run one over the top wire at right angles to it, carry my vines up to the wires and put the four arms at the top, thus getting the same fruiting area as in the other case. See Figure 12.

Figure 10 is a reproduction, from a photograph, of a vine in my vineyard, as it appeared last fall after the leaves had fallen and before pruning.

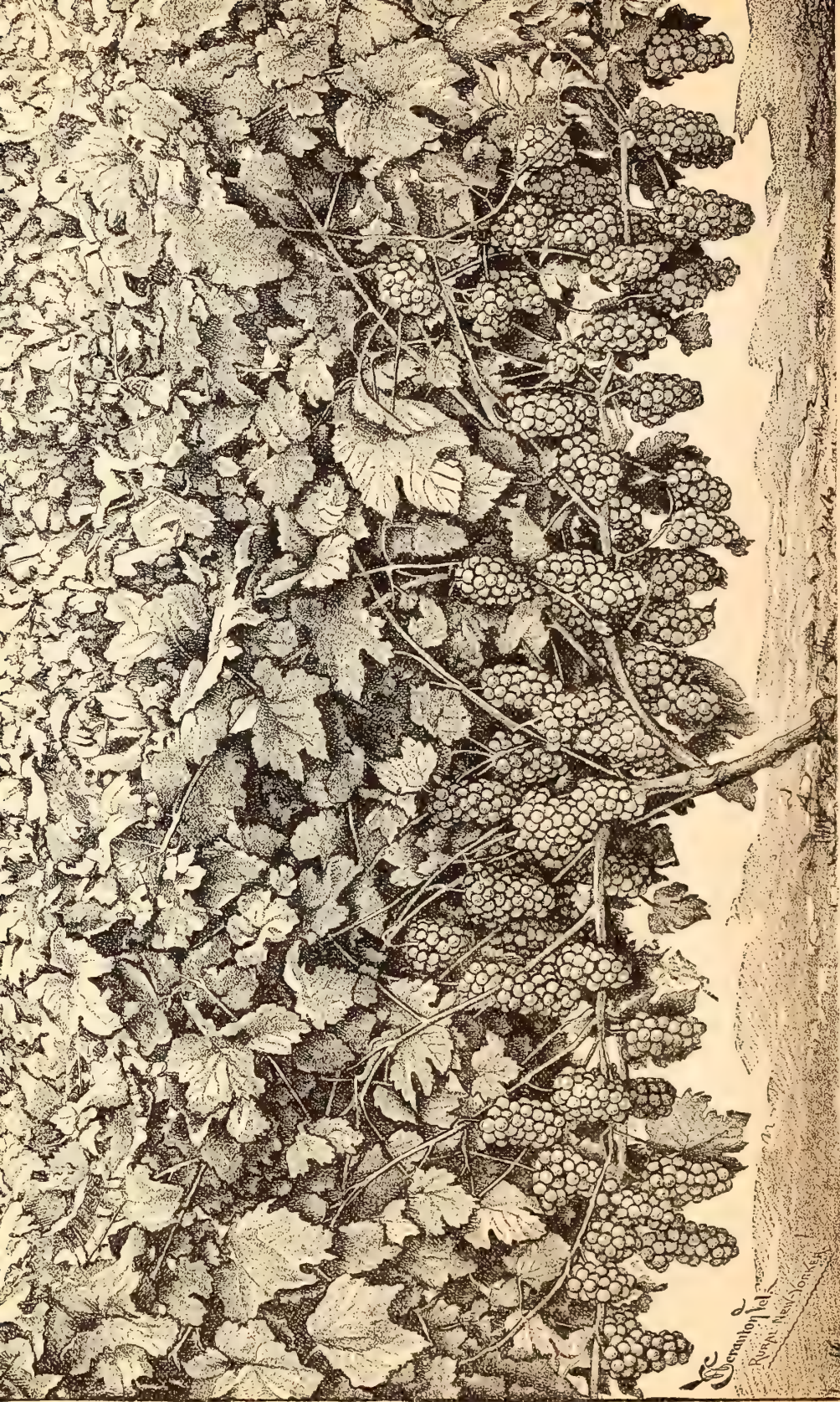
Figure 11 shows the same vine after it was pruned.



FIGURE 12.

Another trellis, well liked, is made by running three wires at the top, nine inches





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apart, the center one for the arms of the vine, and the side ones for the branches, which are trained over them.

Figure 14 is a sketch of a vine trained with a view to lay it down with ease, and is applicable for tender varieties that will not stand exposure during winter in severe climates.

It requires a good deal of nerve and moral courage for one accustomed to the old method to cut, or see another cut, a vine so severely. They lament the depravity of the man who would countenance such reckless destruction, but they generally get over it and grant complete absolution when the next fruit crop is ripe, and condone the past. In case of short-jointed varieties, like the Jefferson, I cut the arms to eight or ten buds, removing alternate ones, giving the remaining ones more space. With some varieties, like the Barry, and occasionally in others, the buds persist in growing at right angles with the arms, so that it is sometimes difficult to bend the cane needed for the new arm around to its place, they are so rigid, but a little coaxing in damp weather generally succeeds. Sometimes one is found too obstinate for the purpose. In such cases I spur it to two buds and take the next one for the arm. The spur will furnish the arm for the following year in its proper place. The upper left hand arm in Figure 11 shows a case of this kind, the cane wanted for the arm turned the wrong way. It was spur-pruned, and the next cane used as the arm for this season, which will be removed entire at the next pruning, and the cane growing from the base of the spur will furnish the arm for next year.

Mention has been made of the tendency of the sap and fruit to the top or extremity of the vines. As an illustration showing the value of this feature, and how completely and easily it responds to the wants of man when intelligently directed, I will give you an example:

A city gentleman, some years ago, had a small yard filled with a few fruit trees that appropriated every ray of sunshine that managed to penetrate it, and he wanted some grapes. After a careful survey of the situation, he concluded, by a little extra care if necessary, the vine might get a foot-hold and sufficient nourishment from the same sources the trees did. The vine was



FIGURE 14.

planted, and as it grew it was trained up by the side of the house in a single cane, to the eaves of the second story, and given a trellis built from the gutter to the roof. An attic window in the roof gave access to the vine for pruning and gathering the fruit, and for years that vine responded annually with a bounteous crop of delicious fruit, beyond the reach of outside depredators. A little "gumption" and Yankee ingenuity did it, and there are thousands of homes far better situated that have no room for a grapevine.

#### SUMMER PRUNING.

Do I believe in it? I do, most assuredly, and practice it, too. Its objects and advantages in directing the energies of the young vine to the growth of wood have already been spoken of in the treatment given the first and second seasons.

As the vines awaken from their winter sleep in the spring, and the buds begin to swell and burst forth it will be observed that two buds often appear from what seemed but one in the dormant state. The first and simplest operation in summer pruning is to rub off one of these and all superfluous ones, wherever and whenever they appear. A simple touch of the finger will do it. The weakest, and generally the lowest one has to go. If the buds, from any cause, start feebly, the sooner this is done the better for those that remain; but in cases where they start strong and vigorously, indicating a superabundance of steam under high pressure, it is well to let some of it escape through these channels, and defer their removal till the embryo clusters have appeared. If these shoots have grown a foot or a foot and a half long, no matter; the check to the vine will be the greater, and their removal none the less demanded.

The only trouble likely to attend delay in their removal will be the want of moral courage in the operator. It is apt to hurt one's feelings to destroy so many prospective clusters of fruit, and the temptation to allow them to remain is very strong. The remaining shoots are pinched off at one or two leaves beyond the last cluster of fruit and all laterals are stopped in the same way as recommended for the young vines to one leaf.

These bearing canes and laterals after recovering.

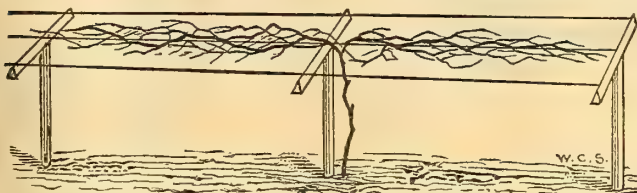


FIGURE 13.





MOORE'S EARLY.

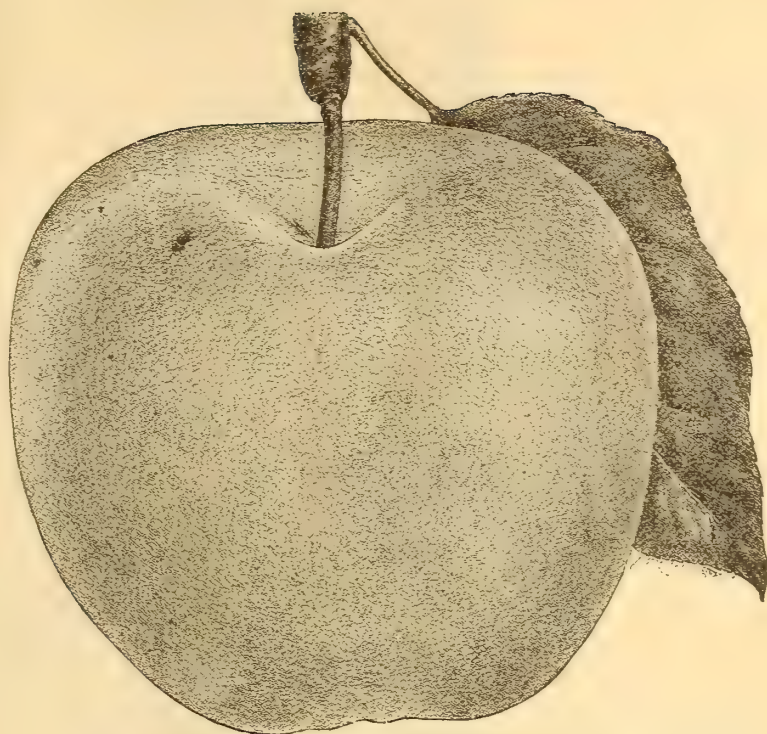
from the check thus given will soon recover and make a fresh start in wood making, and the pinching process is repeated as before, leaving an additional leaf each time. The effect of this treatment is

to retard the sap and retain it where it is needed for the full development of buds, leaves and fruit. The leaves remaining increase in size much beyond their normal proportions, and I have a theory that a strong, vigorous leaf of this kind is most capable of resisting the attack of mildew, and the larger the leaf area next the fruit, the larger and finer the fruit will be.

This pinching process also results in full, plump, and well developed buds on the canes to be left for the next year's fruiting, as you will see from the specimens I have brought to show you how the pruning is done.—Some advocates of long pruning urge as a reason for it that the third and fourth buds on a cane produce the best clusters, and some even assert that the auxillary buds, those that emanate at the junction of the young cane with the old wood, will never produce fruit.

That depends altogether on the treatment the vines have received. If they have been allowed to grow at random and take care of themselves, I admit they seldom fruit, purely from lack of development. The sap being allowed to pursue its natural course unmolested, it has no time to stop and pay proper atten-

tion to these buds; but, with judicious summer pruning these base buds are equal to the emergency. In fact the short spur system heretofore described depends absolutely for success on this summer pruning.

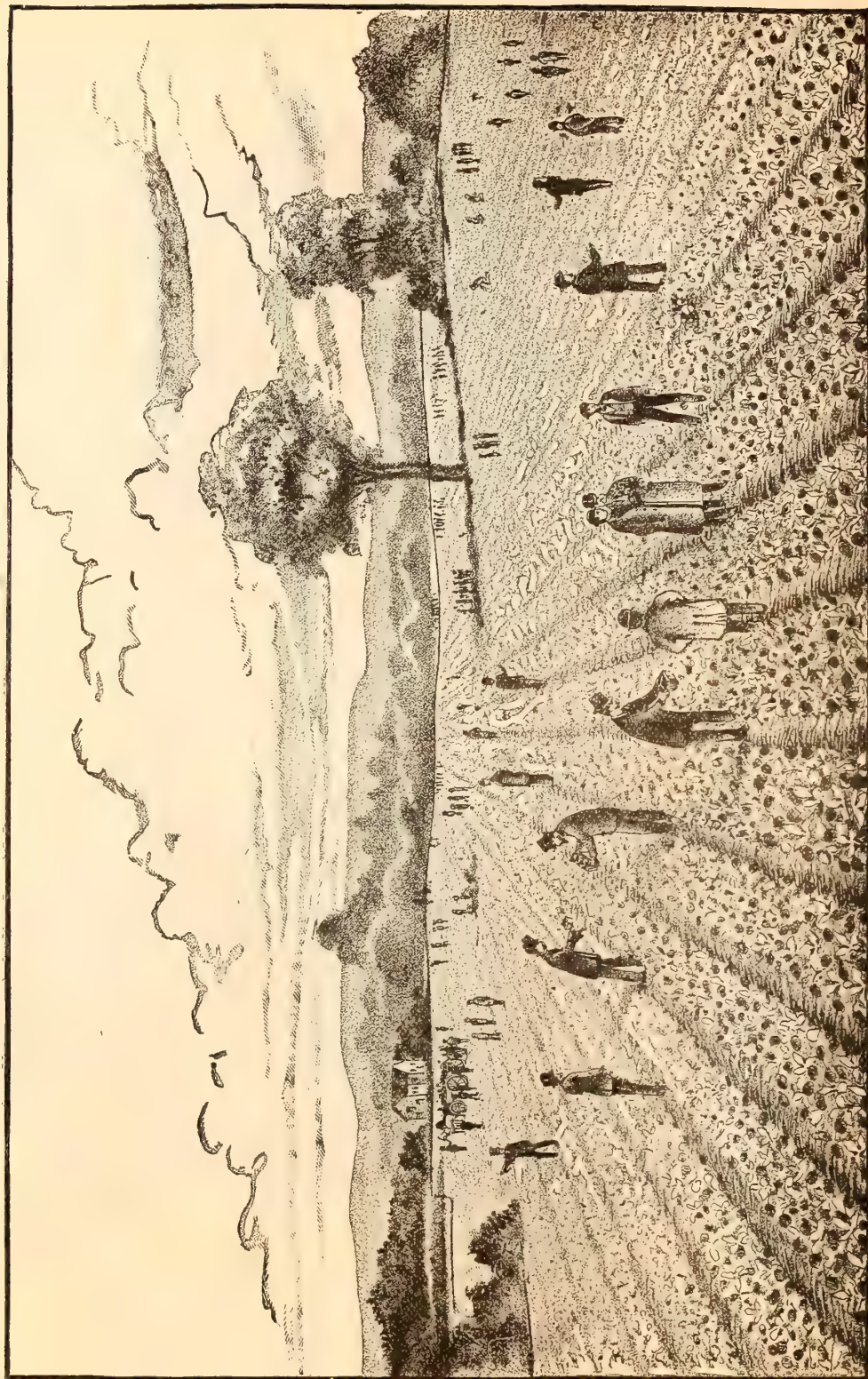


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The Field of Jessie Strawberries visited by the Wisconsin Horticultural Society, June 16, 1886.

# THE JESSIE STRAWBERRY.

☞ All orders should be sent to the introducers, Green's Nursery Co., Rochester, N. Y., we being headquarters for the Jessie Strawberry, Mr. Loudon conveying to us the exclusive right of introduction. State plainly whether we shall send by express or mail. The plants will be of more than ordinary size and vigor.



F. W. LOUDON,  
Originator of the Jessie.

## The Originator's Methods.

I began raising seedling strawberries thirty years ago with the belief that this fruit could be very much improved in every respect. To give in detail all I have learned of the strawberry during that period would require volumes.

At first I selected seed from large berries of those varieties used for market at the time; in this way thousands of new varieties were produced, all distinct. Among these were many showing berries of large size but non-productive.

Every year brought forth new varieties by other originators. These I procured as soon as put upon the market. After one or two seasons I decided upon their merits; if they possessed any good points, I raised seedlings from them, always saving the best and most promising for further use. By pursuing this course, many very fine berries were obtained, some showing large berries, but lacking in productiveness, etc. Others were productive but lacked size.

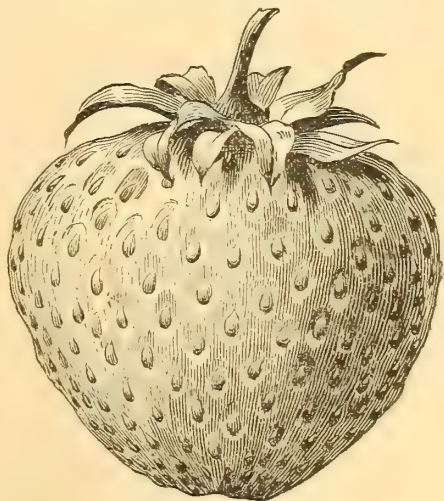
With the best of these as a starting point, fifteen years ago I commenced a series of crosses, mixing the blood of many of the new varieties from other sources, as they appeared, until I succeeded in getting a collection of large, stocky plants of numerous varieties, each having many points of a perfect strawberry.

From the fruit of these I saved seed to produce new varieties; eight per cent. of such product I kept for trial, ninety-two per cent. being discarded. Most are superior to those that we pay \$2 or \$3 per dozen for.

To carry a profusion of large berries the plant must be vigorous, stocky, with large and clean foliage. Up to 1880 the pedigrees of all varieties of my productions were the same.

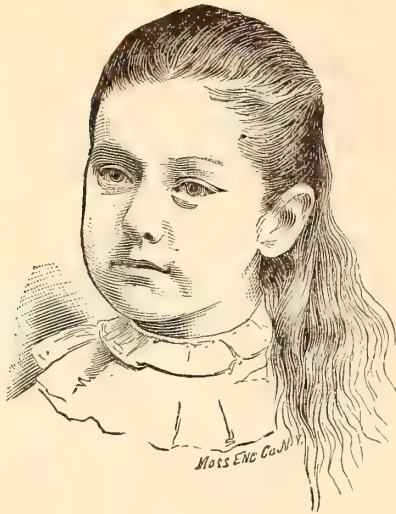
The most noted varieties used are the "McAvoy's Superior," "Agriculturist," "Boyden's 30," "Great American," "Green Prolific," "Charles Downing," "Triumph de Gand," "Jucunda," "President Wilder," "Sharpless," and "Miner's."

To me the raising of seedlings has been a labor of love. The pleasure attending this labor has been somewhat compensated. To make it more interesting, I have decided to



THE JESSIE STRAWBERRY.





JESSIE,

the originator's daughter, after whom the strawberry was named.

let Mr. Charles A. Green, introduce the "Jessie," a seedling of the Sharpless, a staminate, originated in 1880, which has fruited five seasons.

The plant is a stout, luxuriant grower, foliage light green, large and clean, with never a trace of rust. The berry is very large, continuing large to the last picking, with no small berries. It is of beautiful color, fine quality, good form; colors even, with no white tips; quite firm, having been shipped 600 miles in good condition. If picked green, as the Wilson usually is, it will carry 1,000 miles.

In 1884, from 180 hills set September previous, I picked twenty-six berries that made two heaping quarts; twenty-two berries from same hill, not selected, made one heaping quart, which with a basket of stems were shown at the Nurserymen's Convention held in Chicago.

In 1885, on a plat of a half acre (1,200 hills set between 1st and 20th of September, 1884,) were picked over 1,200 quarts, after hundreds of visitors had sampled the berries. This yield would give 300 bushels per acre. The ripe berries on some hills were counted and numbered from sixty-five to seventy-one to a hill. I have not tried setting hills in the spring, as my aim has been to raise all the plants possible.

The yield in matted rows the past (1886) season was 200 bushels per acre, notwithstanding the unprecedented drouth. The ground was hard as a pavement; cracks two

or three inches wide frequent. The thermometer for two weeks indicated 92° to 102° in the shade. The sun was so hot as to blister the berries, yet the leaves of Jessie endured the ordeal, never having shown signs of leaf blight here or in the different places where it has been tested. F. W. LOUDON.

### American Horticultural Society's Report.

Prof. Green, Ohio: "We have a number of the newer sorts under trial at the Experiment Station. Jessie seems one of the most promising new sorts we have. Plants very vigorous, berries large, productive."

Mr. Smith: "Regarding the Jessie, Mr. Loudon's seedling, the Wisconsin State Society visited it on the originator's grounds last season and were very enthusiastic in its praise. The berries lay upon the ground in heaps. They were fair in shape, of good color, averaging very large; one measured nine inches; quarts would measure from six to seven; flavor very fine. If it does as well after dissemination, it will be a great acquisition surely." Mr. Crawford spoke very



HARD WORK TO SELL  
small strawberries when the large and beautifully colored Jessies are offered in market.

highly of it: "It is the only kind ever sent me that did well two years in succession; good quality, ripens all over at once." Mr. Miller: "Mr. Loudon wrote me that his six acres of the Jessie, in spite of the great drouth, had yielded over 200 bushels per acre." Mr. Smith: "I have no doubt of it from what I saw when I was there." Remember that above (reported by the *Rural New Yorker*.) are three experts, who have grown Jessie in their own gardens: Professor Green, of the Columbus Experiment Station, who is thus testing more new and old kinds than any other person, President J. M. Smith, the leading pomologist of the northwest, and a most conservative and practical fruit grower, Matthew Crawford, the well known Ohio authority.

### Report of a Well Known Authority.

One of the grand features of the meeting of the Wisconsin Horticultural Society was the visit to F. W. Loudon's strawberry plantation in the city limits. Mr. Loudon has made strawberry seedlings a life-long study, buying every high-priced new variety and selecting the choicest kinds. He has been crossing by fertilization for: First—health and vigor of plant; second—productiveness; third—size and form; and, fourth—quality; and after thirty years of trial he has produced fifty very promising seedlings, and to show what the convention thought of them I will add a copy of the resolutions which were adopted without a dissenting voice:

*Resolved*, That the show of the "Jessie" upon F. W. Loudon's grounds exceeds anything we have ever seen in size, productiveness and quality, and we believe it possesses more valuable qualities than any variety now disseminated.

*Resolved*, That in addition to the "Jessie" we are surprised at the wonderful success attained by F. W. Loudon in producing so many very promising and valuable varieties of strawberry seedlings, many of them exceeding in size and productiveness our best varieties now generally cultivated.

The committee appointed to make additional report, after several visits, made the following report June 28th:

"After seven weeks of severe drouth we find the Jessie well loaded with fine large berries, some measuring four inches at this last picking, remarkably firm and of excellent quality, and judging from the quantity of fruit on the matted rows, we think a good picker would fill a quart box in one and one-half minutes at this picking, anywhere on the two acres of Jessie as growing for market. The committee picked and shipped some berries of Jessie at this date, when some of the

fruit was overripe, to a point in Iowa 602 miles distant, where it arrived forty hours after picking in fine condition. The committee also find among Mr. Loudon's seedlings, many kinds, at the close of the fruiting season, that give wonderful promise of great merit both in size, quality, productiveness, firmness of fruit and vigorous plants and healthy foliage, notwithstanding the unprecedented drouth. These, together with the Jessie, stand side by side with Crescent, Wilson, Manchester, May King, Piper's Seedling and many other of our best sorts, having received the same treatment and standing in matted rows without any extra care or mulch, showing the superior qualities of these new kinds above everything we have ever seen. And from the variety of soil where they are now fruiting, one row of Jessie standing in clean sand taken from a bank forty feet below the surface, from which your committee picked and measured a berry four and a half inches (at a previous visit); from this variety of soil to hard clay which had cracked two inches wide, showing the severity of the drouth. We cannot see why these new varieties should not open a new era in strawberry culture wherever strawberries are grown. Signed by the committee and sent to the secretary at Madison.

The convention adjourned and spent an hour or more upon Mr. Loudon's grounds the afternoon of the first day, and when I write that Pres. J. M. Smith, of Green Bay, who has tested all the new strawberries for twenty-five years, and has produced Wilson's at the rate of 44 bushels per acre, and A. G. Tuttle, of Baraboo, who is also a veteran strawberry grower, and all else were captivated by the Jessie when they measured specimens eight inches, and very many four to six inches, and when the fruit judges reported the Jessie ahead of Sharpless in size, and of better quality than Atlantic, Prince of Berries, or anything else competing, you may well say it is wonderful.

GEO. J. KELLOGG.

### A Prominent Lady Reports What She Saw.

The study of horticulture would seem to be one unending round of delightful duties. The horticulturist lives close to nature's heart and to him she confides her secrets and discloses the problem of growth. Through the propagation of her fruits and flowers she reveals the laws which govern the material world. To be successful in horticulture one must have love for the work and "to him who in the love of nature holds communion



with her visible forms, she speaks a various language." Yet with all the fascinations the high road to success is oftentimes far from being smooth.

The summer meetings held by horticulturists in the interest of their labors are like oases in the desert. Especially is this true of the convention held in Janesville, June 16, 1886. The meeting was profitable and interest continued unabated throughout the session. A part of the programme, which was of more than usual interest, was the visiting of the grounds of F. W. Loudon, for the purpose of inspecting his new seedling strawberry. Mr. Loudon has made the cultivation and propagation of strawberries his study for years, and although we are told that perfection cannot be attained in this world the Jessie strawberry has upset such theories.

In short, the coming berry has come, and far exceeds the expectation of the most sanguine. The Jessie—named after one of Mr. Loudon's daughters—is of a deep, rich color, attractive in form, a Jumbo in size, (I picked specimens which measured  $9\frac{1}{2}$  inches in circumference). In flavor it is a delicious pineapple; it is firm without being hard, thus rendering it a desirable berry for shipment or for the table. The compliments of Mr. Loudon represented by a box of these delicious berries stands before me now, which compare with our Crescents as our Crescents compare with wild berries.

We have had new varieties which promised well but did not prove satisfactory but the Jessie will thrive and flourish in all soils, having been tested in a great variety of soils. Whenever he heard of a new soil Mr. Loudon would send for a barrel and try growing a few plants of the Jessie in it. He had a number of plants growing in a fine gravel taken from a well thirty feet below the surface. They were small when compared with those grown in good soil, yet no smaller than we have seen plants of other varieties in many of our gardens. There they stood—sturdy little things—full of fruit as much as to say: "We are going to do our best even if you do abuse us."

Mr. Loudon has been very successful as a propagator of new varieties. He was the originator of the famous Janesville grape. The man who conducts the long line of experiments necessary to produce a new variety that shall prove satisfactory is a public benefactor but one whom the public is generally slow to acknowledge. We seldom think when eating our luscious fruit of the careful, painstaking labor which has brought them to their present degree of perfection.

An hour was spent in examining the Jessie strawberries, which were literally piled one above another as they grew.—VIE H. CAMPBELL, Evansville, Wis., in *Wis. Farmer*.



THE CONTENTED MAN

is the man who has seen the Jessie and has fitted ground on which to plant it as soon as spring opens.

### The Introducer Speaks.

The strawberry seems to be the most popular of all fruits. More attention is given it by planters, consumers and originators of new varieties. The possibilities of new varieties are marvelous. The vigor and productiveness of plant, size, beauty and quality of berry that may be secured by judicious crosses of varieties seems to be without limit. So far have we progressed, engravings made of remarkable strawberries during the rebellion would now create a smile by their dwarfed and insignificant appearance. If nothing more had been accomplished during the past 20 years than the introduction of the Sharpless and Crescent, the time spent by originators would have been profitable to the country.

While on a summer excursion I stopped at Barnesville, Ohio, to attend a strawberry exhibition. Over the tables of fruit I shook hands with Matthew Crawford, the prominent Ohio authority, who had a promising new variety on exhibition. While looking at his splendid specimens, I asked, "Which is the most valuable new variety that you have tested?" "The Jessie," he replied, "originating with F. W. Loudon, of Wisconsin." "What are its merits?" I asked, for this was the first I had heard of it. He replied: "It is vigorous, healthy, beautiful, large size and superior quality. It has more good points than any variety I ever saw."

Soon after I met Professor W. J. Green, of the Columbus experiment station. Knowing that he had tested more varieties of new strawberries perhaps than any other person in the country, I asked which variety he had found most valuable. He replied in effect that the Jessie was the most promising, naming the features mentioned by Mr. Crawford. A few days after, I met at Washington, D. C., Mr. J. H. Hale of Connecticut, a prominent introducer of new fruits, and wide awake young man. I knew he had twice visited Janesville to see the Jessie, so I concluded to draw out his opinion, expecting he would be shy of mentioning the Jessie.

"Is there anything new in the way of strawberries, Mr. Hale?"

"Oh, yes; several new strawberries," he replied.

"Is there anything particularly valuable offered?" I asked.

"Yes; some very promising varieties," he replied.

"Can you give me any points on something of special value?"

"Why, no; I don't know as I can," replied Mr. Hale.

"Come, come, why not own up, and not be so sly. Tell me all about it."

"About what?" asked Mr. Hale.

"About the Jessie strawberry that you have been twice to see, and propose to purchase," I replied.

"Oh! it was the you Jessie were referring to; I supposed everybody knew about the Jessie! Why, it is a good thing; of course it is. When it is offered, buy all you can of it and plant it largely."

Soon after I learned that Mr. Lovett of New Jersey, had his eyes on the Jessie, and later I heard of other nurserymen doing likewise. Then came the report of the Wisconsin State Horticultural Society, which met at Janesville to see the Jessie, and the meeting

of the American Horticultural Society at Cleveland, Ohio, where President J. M. Smith, of Green Bay, Wis., a most conservative man, who has clung to the old sour Wilson like a brother for all the past years, hardening his heart against new varieties, told the people what a remarkable strawberry had been produced at Janesville, called the Jessie, and where many others testified to its value.

Thus simply by verbal reports of people who have seen or planted the Jessie, without a line of advertising or puffing, the Jessie has secured a national reputation among those who claim to be posted as to what is going on in this department. CHAS. A. GREEN.

### What Pomologists Say Who Have Seen or Crown the Jessie.

OHIO AGRICULTURAL EXPERIMENT STATION,  
COLUMBUS, O., Nov. 16, 1886.

Chas. A. Green:

DEAR SIR—Plants of the Jessie have been in fruit one season on the station grounds, which is not a sufficiently long period to enable me to judge fairly as to the merits of a variety. I am, however, impressed that the Jessie has great merits. The plants are healthy and vigorous, while the fruit is large and handsome, being regular, uniform, and of good color. I think that the variety will take a high rank for market purposes, and I do not hesitate to recommend it to fruit growers for trial. Respectfully,

W. J. GREEN.

DEAR SIR—I have fruited the Jessie twice, in my home garden, and can find no weak place in it. This is more than I can say for any other strawberry that was sent me for trial. The plant is perfection itself, being strong, stocky, vigorous, *free from rust*, and wonderfully productive. It has a perfect blossom. The fruit is very large, of regular form, with rare exceptions, and it is among the very best in quality. I seldom advise any one about varieties, but make an exception in this case, for those who fail to plant it will regret their course, as no other yet in the market has so many good qualities. As soon as it becomes well known, it will take the place of a large number of varieties now considered among the very best. You are fortunate in having the introduction of it.

Yours truly, MATTHEW CRAWFORD.

MT. HOPE NURSERIES,  
ROCHESTER, N. Y., Nov. 11, 1886.

DEAR SIRS—Enter our order for 100 Jessie strawberry plants, for testing on our grounds.

ELLWANGER & BARRY.





### THE MAN WHO LAUGHS.

Is the man who already has the Jessie growing in his garden.

CONNECTICUT STATE GRANGE, }  
November 22, 1886.

DEAR FRIEND GREEN:—As I saw the Jessie in the grounds of the originator two years ago, it impressed me as a perfectly healthy plant, twice as productive as Sharpless, fruit larger and of far better quality, more perfect in form and color, and as it has a perfect blossom, I could see no reason why it should not become one of our most popular varieties, especially now that there is such a demand for extra large berries that are productive.

Truly yours, J. H. HALE.

[Mr. Hale is a prominent nurseryman, and Master of the Connecticut State Grange.]

DEAR SIR:—I am pleased to hear of your success in introducing the Jessie strawberry, as from the berries I had last season, I am convinced that it is the finest I have ever seen, both from size and quality, and I think will give satisfaction to every purchaser.

E. B. HEIMSTREET,  
Secretary Horticultural Society.

PINE BLUFF, Dane Co., Wis., }  
November 20, 1886. }

Mr. F. W. Loudon:

DEAR SIR—I with other members of the Wisconsin State Horticultural Society visited your grounds. It was the universal opinion of the best growers of strawberries in this state, that they had never seen such fine and so large berries; as your bed of Jessies. Yours truly, MATT. ANDERSON,  
Treas. Wis. State Horticultural Society.

F. W. Loudon, Esq.:

From the display of fruit both in the exhibition room and on the vine, of the Jessie strawberry, made by you at our State Horticultural convention in Janesville, I am convinced that the Jessie has extraordinary merit as to *quality, fine appearance and production*. The crop, as shown by the acre in your grounds, with only ordinary culture, and suffering from severe drouth, was *something wonderful*.

J. S. STICKNEY,

President Milwaukee Pickle Co.

[Mr. Stickney is largely engaged in fruit growing, and holds an office in the State Society. He is one of the best men living, and is well known in the west.]

BARABOO, Wis.

F. W. Loudon, Esq.:

DEAR SIR—I regard your success as an originator of very many valuable new strawberries as truly wonderful. The large plantation of the Jessie I saw at your place last summer, grown in matted rows with most ordinary field culture, and suffering under a protracted drouth, made a show of fruit for size and productiveness such as I had never seen, under the most favorable conditions of culture. I expect to invest at least \$10 next spring in the Jessie. I shall probably attend many of the institute meetings the coming winter, and will give the Jessie the praise it deserves. I try to avoid all humbugs, but cheerfully give my testimony in favor of any fruit that I think valuable.

A. G. TUTTLE.

[Mr. Tuttle is one of three of a committee on new fruits in Wisconsin State Society.]

[From *Country Gentleman*.]

WIS. HORTICULTURAL, JANESVILLE.

The strawberries were the best I ever saw. I think I saw half a dozen in New England at the Boston Horticultural show, but these were grown with great care and carefully selected. Mr. F. W. Loudon had 65 plates; we adjourned to the strawberry farm of Mr. Loudon and beheld a sight that baffled all our strawberry knowledge; there were bushels of this Jessie as large as pullets' eggs.

WM. HORNE, M. D.



CHARLES A. GREEN,

INTRODUCER OF THE JESSIE STRAWBERRY.

We have seen the Jessie on Mr. Loudon's grounds in fruiting, and will say that it is ahead of anything we ever saw in the strawberry line. The berries were all large to VERY LARGE, and were of splendid form and color. They were certainly by far the handsomest berries in the crate we ever saw. We were completely carried away with it, and tried to buy some of the plants, but he had not decided to put it on the market at that time. The plant is very robust and strong, and seems to be able to break through an immense load of fruit.

Very truly yours,  
COE & CONVERSE, Nurserymen.

Mr. Loudon's strawberry, the Jessie, I have seen in its original bed and have bought in the market. It combines four excellencies—size, solidity, sweetness, and delicious flavor. Of all the strawberries, so far as my experience goes, this is the best.

WILLIAM F. BROWN,  
Pastor First Presbyterian Church.

We have handled Mr. F. W. Loudon's berry crop for the past few seasons. The last

two seasons we have had his crop of Jessie, and on account of size and quality we found no difficulty in retailing this variety at from 12½ to 15 cents per quart, while Wilsons, Crescents, etc., were a drug in the market at from 6 to 8 cents. Respectfully,

VANKIRK BROS.

JANESVILLE, June 17, 1886.

One of the most attractive features of the Wisconsin State Horticultural Society exhibit, now being held at Apollo Hall, is the strawberry exhibit of F. W. Loudon, embracing over 70 plates. All were of monstrous size, the most attractive of which was the famous Jessie, just as picked from the vines, a crate full dumped upon the table. Each looked as if selected for a prize. All were large, and the perfection of fruit, the finest, and most perfect that I have ever before seen.

CYRUS MINER,  
Treasurer Wisconsin State Ag'l Society.

BROADHEAD, WIS.

I saw the Jessie in your grounds in the summer of 1885, growing in alternate rows with all the popular leading varieties. They surpassed any I ever saw anywhere, not only in size but in quality and productiveness. Out of the four or five varieties that were extra fine, the Jessie is my choice. I visited your grounds again in 1886, and found your seedlings producing just as heavy a crop of large, luscious berries as they did the year before, notwithstanding we were passing through the most severe drouth.

Yours truly, N. N. PALMER,  
Nurseryman and Fruit Grower.

GRANTON, Canada, Nov. 23, 1886.

I saw the Jessie in all its glory at Matthew Crawford's place. I believe it and Itasca are the leaders of the best strawberries of to-day. Wishing you every success,

I am truly yours, JOHN LITTLE.  
[Mr. Little is the Canadian authority on strawberries.]

Price of Jessie Strawberry plants for Spring of 1887, \$2 per 12; \$12 per 100.

Three plants of Jessie are sent by mail post paid to all who send us 50 cents for GREEN'S FRUIT GROWER one year without other premium. Address,

GREEN'S NURSERY CO.,  
Rochester, N. Y.



## Leading Ornamentals.

**AILANTUS (Tree of Heaven)**—A lofty, rapid-growing tree, with long, elegant, feathery foliage; exempt from all diseases and insects. One of the most distinct of ornamental trees with pinnate foliage. Useful for producing tropical effects. Large trees, 25c. each; small trees, 15c.

**CATALPA (Speciosa)**—A hardy variety originating at the west; more upright and symmetrical in its growth than the Common Catalpa (*Syringifolia*), and blossoms two or three weeks earlier. Very valuable for timber, fence posts, railroad ties, etc., possessing wonderful durability. A very ornamental and valuable tree. Blossoms large and showy. Large trees 25c; small trees 15c.

**ELM (Ulmus), American White**—The noble, drooping tree, spreading tree of our own woods. One of the grandest of park or street trees; 25c.

**HONEY LOCUST**—A rapid growing tree; delicate foliage, of a beautiful, fresh, lively green, and strong thorns. Makes an exceedingly handsome, impervious and valuable hedge. Beautiful large blossoms. Large trees 20c.; small 10c.

**HORSE CHESTNUT (White Flowering)**—A very beautiful, well-known tree, with round, dense head, dark green foliage, and an abundance of showy flowers in early spring. Price, large trees 50c.

**MAGNOLIA**—Price \$1 each.

**NORWAY MAPLE**—Price, 50c.

**WHITE OAK**—Price, 50c.

**BIRCH (Cut-Leaved Weeping)**—An elegant erect tree, with slender, drooping branches, and fine cut leaves. A magnificent variety, and worthy a place on every lawn. Price, 75c. each.

**MOUNTAIN ASH (Weeping)**—A beautiful tree, with straggling, weeping branches; makes a fine tree for the lawn, suitable for covering arbors. Price, 75c.

**PRUNUS PISSARDI**—A red leaved plum of rare beauty. One of the finest colored leaved lawn trees. Price, 50c. each.

**KILMARNOCK WEeping (Caprea Pendula)**—An exceedingly graceful tree, with large, glossy leaves; one of the finest of this class of trees; very hardy; 75c.

**ARBOR VITÆ (American)**—This plant is, all things considered, the finest Evergreen for hedges. It is very hardy, and easily transplanted few or no plants ever failing if properly trained specimens are obtained. It grows rapidly and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense, and perfectly impervious to the sight. Of course it is never adapted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other parts of the ground, or for any other purpose. It also makes a handsome tree for the lawn, and can be pruned to any shape or space desired. Large trees 25c. Eighteen inches to two feet for hedges \$8 per 100.

**SPRUCE (Norway)**—A lofty, elegant tree, of perfect pyramidal habit, remarkably elegant and rich, and as it gets age, has fine, graceful, pendulous branches; it is exceedingly picturesque and beautiful. Very popular, and deservedly so, and should be largely planted. One of the best Evergreens for hedges. Large 25c. each. Small for hedges, \$8 per 100.

**SPRUCE (Hemlock or Weeping)**—An elegant pyramidal tree with drooping branches and delicate, dark foliage, like that of the Yew; distinct from all other trees. It is a beautiful lawn tree and makes a highly ornamental hedge; 25c. each.

**CLETHRA ALNIFOLIA**—Our specialty. A constant bloomer; the most delightful fragrance of all. Large plants 50c.; small by mail 50c.

**ALTHEA, or Rose of Sharon**—Common, 35c., variegated leaved; very attractive, 50c.

**BERBERRY (Red Fruited)**—A beautiful shrub, holding its berries well into winter. Fruit valuable, also for preserves or pies; 15c. each.

**Deutzia, Forsythia, Lilac, Japan Quince, Spirea, Syringa, Wigelia, Ampelopsis Veitchii, Honey-suckle, Virginia Creeper, Wistaria**, 25c. each.

**CLEMATIS**, Hydrangea, 50c. each; Rhododendrons, \$1; Azalias, 50c. to \$1 each. Hardy Roses 25c. each. Our selection of varieties of Roses at these low prices, all choice kinds.



## Free Delivery by Mail!

We can mail all kinds of plants and vines, and many trees. Notice our offer of one-year old Apples by mail, at 60 cents per 12, or \$3 50 per 100. But here we desire to call attention to

## FOREST TREES at \$1 per 100 of DECIDUOUS AND EVERGREEN

Varieties for sale at Lowest Rates. They are all nursery grown, and are nice, well rooted plants. Most of these trees are grown from seed gathered in latitude 45° North, and hence may be relied upon for hardiness. They are especially adapted to the wants of **FOREST TREE PLANTERS**, and also for ornamental uses. I also offer a large list of trees of hardy species, native and foreign, embracing over **100 VARIETIES**.

These trees are mostly one year, from 2 to 6 inches above ground (though we can furnish larger), the small size enabling us to ship or mail to the most distant territories at the smallest possible expense. For instance, we can deliver to you, postage paid by us, small Sugar Maple and Hardy Catalpa, for 75 cents per 100; Russian Mulberry for \$4 per 100; or Norway Spruce, Arbor Vitæ (Cedar), at \$1 per 100; or by the 1000 at much lower prices. Remember, we can sell over 100 different kinds of trees and shrubs at very low prices. Simply send a list of what you want, stating whether to go by mail or express, and we will attach lowest prices possible.

**NOTE**—No less than \$1 orders received. We can send a few of each kind at prices made known on application. We will send you 100 tree seedlings by mail, post paid, 4 different kinds, our choice (but you can state your preference), for \$1. These trees should be first planted in beds, and evergreens shaded for the first few weeks.

**TREES and SHRUBS for HEDGES, Free Delivery**—Am. Berberry (*Berberis Canadensis*), \$5; Hawthorn (*Crataegus oxyacantha*), \$1; Honey Locust, \$1; Hornbeam (*Carpinus betulus*) \$1.20. Per 100.



## PRICE LIST.

**GREEN'S NURSERY CO., ROCHESTER, N. Y.**

Offer Plants, Vines and Trees at the Following Prices. Such Varieties as are not Offered here can be Supplied, but Usually at Higher Prices.

Reference: *Flour City National Bank, of Rochester, N. Y.*

**APPLES**—5 to 7 feet, 18c.; 4 to 5 feet, 12c.

**ONE-YEAR OLD APPLE TREES**—60c. per 12; \$2.50 per 100.

**APPLES**—5 to 7 feet—See pages 3-9 of catalogue, which is sent with five colored plates for ten cents. Baldwin, Bellflower, Ben. Davis, Dutchess, Dominey, Early Harvest, Early Strawberry, Fall Pippin, Fameuse, Grimes Golden, Golden Russet, Hubbardston, Hurlbut, King, Late Strawberry, Lawyer, Mangum, McIntosh Red, Munson Sweet, Northern Spy, Pewaukee, Red Astrachan, Rambo, R. I. Greening, Seek no Further, Shockley, Spitzenburg, Stark, St. Lawrence, Sweet Bough, Swaar, Talman Sweet, Tetofsky, Wagner, Wealthy, Wine Sap, Walbridge, 18c. each; \$1.80 per 12. Above kinds, medium size, 12c. each; 1.20 per 12.

Yellow Transparent, Red Beitgheimer, Blenheim Pippin (Lord Nelson), Kirkland, Cogswell, Sutton Beauty, Red Canada, Stump, Mellon, Mother, Fanny, Pomme Grise, Shannon, Schiawasse Beauty, Kentish Fillbasket, Lady Henniker, Clermont, first-class, 20c. each; \$2.00 per 12.

Salome—The new, hardy and long-keeping red apple, 4 to 5 feet, 60c. each; \$6 per 12. Salome in dormant bud by mail, 25c.

**Dwarf Apples**—20c. each.

**OUR ONE-YEAR OLD APPLE TREES**—We have for sale a fine lot of well-rooted and vigorous one-year old apple trees. These trees are one year's growth from the graft. They can be easily transplanted, and I should not expect to lose one in a thousand in transplanting. These trees can be planted in a row in the garden, where in a short time they will be large enough to be placed in the orchard. While thus transplanted, they will form a mass of fibrous roots, which will make their after transplanting more certain. A desirable feature in connection with these young trees is, that they can be mailed or shipped by express to the most distant states and territories at very slight cost, and with perfect safety. There are many people in Kansas, Nebraska, Minnesota, Dakota, Washington Territory and California, who desire to plant orchards, who are so far from nurseries that they are discouraged, and neglect to plant that which would yield good profits. For such persons these trees are invaluable. We offer to mail twelve of these trees, postpaid, and delivered at your door, no matter where you may be, though thousands of miles distant, for 60 cents, every tree suitable to your locality.

Surely, with these inducements, no one need have any excuse for not having an orchard.

**LIST OF VARIETIES OF ONE-YEAR OLD APPLE TREES**—We offer the following kinds only: Utters Large Red, Pewaukee, Red Astrachan, Walbridge, Tetofsky, Mann, Whitney Crab, St. Lawrence, McIntosh Red, Baldwin, Greening, Sexton, Wagener, Fameuse, Clark's Orange, Haas, Golden Russet, Spy, Ben Davis, Maiden's Blush, Blue Pearmain, Fall Sweet, York Imperial, Gravenstein, Jeffries, Grimes Golden, price 6c. each; 60c. per 12 (not over four kinds); \$2.50 for 100 (not over six kinds). Note that if a large number of varieties are wanted, and only one or two of a kind, the price is 6c. each, and that we will not sell a large number of kinds at 12 and 100 rates, and do not call for kinds not named herein. Wealthy and Duchess of Oldenburg, 60c. per 12; \$3.50 per 100.

**NEW AND RARE** kinds of one-year apples: Yellow Transparent, Beitgheimer, Blenheim (Lord Nelson), Fillbasket, Fanny, Shannon, Duke of Wellington, Shiawasse Beauty, Sweet Pear, McMahon White, Borsdorf Winter Streaked, Scotts Winter, Orange Winter, Gen. Grant Crab, Sour Bow, Baily Sweet, Alexander, 12c. each; \$1 per 12.

**PEARS**, (See pages 10-13 of catalogue)—Standard, first class, 5 to 6 feet: Bartlett, Clapp's Favorite, Flemish Beauty, Seckel, Anjou, Sheldon, Lawrence, Howell, President Drouard, Clairgeau, Osbards, Buffam, L. Bonne, Vicar, Edmonds, D. d' Ete, Belle Lucrative, Tyson, Brandywine, Duchess de Bordeaux, Madaline, B. Bosc, B. Superfine, Dana's Hovey, Bloodgood, Dr. Reeder, Fred'k Clapp, Josephine de Malines, Souvenir du Congress, Onondaga, Mt. Vernon, price 35c. each; \$3.50 per 12.

Medium size trees of above kinds, 25c. each; \$2.50 per 12. Comet Lawson, first-class, 5c.; small trees, \$1; in dormant buds, 50 cents each. Keifer and LeConte, 50 cents each. Send two cents for colored plates of Comet pear.

**DWARF PEARS** (See pages 10-13 of Catalogue)—First-class, 2 to 3 years: Duchess de Angouleme, Clapp's Favorite, L. Bonne, Bartlett, Anjou, Keiffer, Buffam, Seckel, Flemish Beauty, Howell, Doyen d' Ete, Souvenir, price 25c. each; \$2.50 per 12; medium sized trees 18c.; one-year old, three feet, fine, 15c.; 100, \$10.

**PLUMS** (See pages 17-19 of Catalogue)—Lambard, Bradshaw, Gen. Hand, German Prune, Imperatrice, Gage, Quackenbush, Pond's Seedling, Washington, Yellow Egg, Reine Claude, Damson, Fellenburg, McLaughlin, Smith's Orleans, Jefferson, 35c. each; \$3.50 per 12. Second class, 20c. Niagara, Moore's Arctic, Coppe r Wild Goose, Weaver, Geuli, Beauty of Naples, 50c.

**PISSARDI** (Blood Leafed Plum, ornamental), 50c.

**CHERRIES** (See pages 19, 20 of Catalogue)—First-class: Hardy Kinds, Early Richmond, English Morello, Olivet, May Duke, Empress, Louis Philippe, Montmorency, Leib, Bell Magnifique, Sweet Kinds, Black Tartarian, Gov. Word, Napoleon, Downer's Late, Black Eagle, Coe's Transparent, Rockport, price, 35c.; \$3.50 per 12. Medium sized, 20c.

**Windsor Cherry**—First-class, 75c., one year, 35c.

**Dyehouse**—First-class, 50 cents.



**PEACHES** (See pages 13-15 of Catalogue)—First-class: Early and Late Crawford, Foster, Stump, Wagner, Wheatland, Waterloo, Smock, Salway, Alexander Early Rivers, Conkling, 15c. each; \$1.50 per 12. Early Canada, Lord Palmerston, Susquehanna, Arkansas Traveler, Mrs. Brett, Steven's Rareripe, Shaw's Mammoth, Sallie Worrell, 25c. each; low rates per 1,000.

**APRICOTS AND NECTARINES**—Common kinds, 25c.

**RUSSIAN APRICOT**—Hardest and most productive, 40c. each.

**QUINCES** (See page 21 of Catalogue)—Meech's Prolific, two years, \$1; one year, 75c.; in dormant bud in strong imported roots (also budded to pear), 25c. or by mail for 40c. Send two cents for colored plates of Meech's Quince.

**Orange Quince**—3 to 4 feet, 25c.; \$2. per 12; small trees 18c.

**Champion Quince**—35c.; \$3.50 per 12.

**Angers**—10c.; \$1 for 12. Rea's Mammoth, 60c.

**MULBERRIES** (See page 36 of Catalogue)—Downing, 50c. each. Russian, the hardest of all, is a beautiful ornamental or fruit bearing tree, large trees 25c., small trees, 10c., very small by mail, 60c. per 12. White Mulberry, very large trees, 25c., small trees, 10c.

**STRAWBERRIES**, (See pages 29 and 30 of Catalogue).—Atlantic, Bidwell, Captain Jack, Connecticut Queen, Windsor, Crescent, Cumberland, Downing, James Vick, Manchester, Sharpless, Mount Vernon, Wilson (all propagated from a plant that produced superior fruit), Cornelia, Finch's Prolific, Jersey Queen, Jumbo, Kentucky, Lacon, May King, Old Iron Clad, Parry, Prince of Berries, Piepers Seedling, Primo, Woodruff, 25c. per dozen; 60c. per 100. For 1,000 rates for Strawberries or other stock send for special prices.

**NEW STRAWBERRIES**.—Jessie, our specialty, see description, \$2 per 12; \$12 per 100. Bubach, Surprise, \$1 per 12; \$6 per 100. Jewell, 75c. per 12; \$4 per 100. Belmont, \$2 per 12. We never have seen the time when four such promising new varieties were offered, which shows that the species is being improved rapidly. Neel's Tardy, Ontario, \$1.50 per 12.

**CAP RASPBERRIES**, (see pages 30-33 of catalogue).—Beebe's Golden, Doolittle, Gregg, Mammoth Cluster, Ohio, Tyler, 35c. per 12; 60c. per 50; \$1 per 100. Nemaha, 75c. per 12; \$4 per 100. Hilborn, \$1 per 12; \$5 per 100. Caroline, and Brinkle's Orange, both beautiful golden, 60c. per 12; \$4 per 100.

**RED RASPBERRIES**—Brandywine, Crimson Beauty, Cuthbert, Hansell, Marlboro, Herstine, Turner (*So. Thornless*), Shaffer's Colossal, Philadelphia, 35c. per 12; 75c. per 50; \$1.25 per 100.

**Ranococas**—Best early kind, 75c. per 12; \$4.00 per 100. Golden Queen—\$2 per 12; \$6 per 50; \$12 per 100. Send 2c. for fine colored plate of Golden Queen.

**BLACKBERRIES**, (see pages 36 and 37 of catalogue).—Kittatinny, Snyder, Taylor's Prolific, Wachusett's Thornless, Wilson, 50c. per 12; \$1 per 50; \$1.75 per 100. Stone's Hardy, Ancient Briton, Agawam, Early Harvest, 50c. per 12; \$2 per 100. Early Cluster, Crystal White, Wilson, Jr., 75c. per 12; \$3 per 100. Lucretia Dewberry, \$1.25 per 12; \$8 per 100. Gen. Grant Dewberry, \$1 per 12; \$6 per 100.

**Improved Dwarf Juneberry**—10c. each; \$1 per 12. Huckleberries, difficult to transplant, not recommended on that account, 10c. each; \$1 per 12.

**CURRENTS**, (see pages 33 and 34 of catalogue).—Cherry, Lee's Prolific, Red Dutch, Versailles, Victoria, White Grape, one year plants, 50c. per 12; \$3.00 per 100. Two year plants, 60c. per 12; \$3.50 per 100. Fay's Prolific Currant, one year, 35c. each; \$3.50 per 12. Two years, 45c. each; \$4.50 per 12.

**ASPARAGUS ROOTS**—Conover's Colossal, 1 year 75c. per 100 by mail; two years, \$1 per 100.

**RHUBARB**—Myatt's Linneus, 10c. each; \$1 per 12. GRAPES, (see pages 27 and 28 of catalogue).—Agawam, Brighton, Catawba, Champion, Clinton, Concord, Cottage, Diana, Hartford, Ives, Iona, Lindley, Martha, Perkins, Salem, Telegraph, Wilder, Worden, one year old, 15c. each; 1.50 per 12. Two years old, 20c. each; \$2 per 12.

**Wyoming Red**—An early, red grape, ironclad, yielding enormous crops. It ripens with Delaware, which it resembles, though larger in bunch and berry, but pulpy with fox odor, yet sweet and good. A valuable grape for market growing one year, 35c. each; \$3.50 per 12. Two years, 50c. each; \$5 per 12.

Delaware, Dutchess, Jefferson, Lady, Lady Washington, Moore's Early, Pocklington, Prentiss, Virginnes, one year old, 25c. each; \$2.50 per 12. Two years old, 35c. each; \$3.50 per 12.

**NEWER GRAPES**—Empire State, Poughkeepsie Red, Ulster Prolific, Mary, Norfolk, Niagara, one year, 75c. Two years, \$1 each. F. B. Hays, Jessica, August Giant, Amber Queen, one year, 50c. Two years, 75c.

**FOREIGN GRAPES**—For green-houses, \$1 each; \$10 per 12.

**NUTS AND SUNDRIES**—Am Sweet Chestnut, large trees, 25c; small trees, 10c. Spanish Chestnut, 75c. Almonds, 50c. each. English Walnuts, 50c. each. Butternuts, 20c. each. Black Walnuts, 20c. each. Filberts, 50c. each.

**GOLDEN CLUSTER HOP ROOTS**—The best kind extant, suitable for an ornament to the lawn or garden, or for domestic use, 15c. each; \$1 for 12.

**GOOSEBERRIES**, (see page 35 of catalogue)—Downing, Houghton, Smith's, one year, 75c. per 12; \$5 per 100. Two years, \$1 per 12; \$7 per 100.

Industry Gooseberry—35c. each; \$3.50 per 12.

## PRICE LIST PER 100,

### FREE DELIVERY.

Ailanthus (*A. glandulosa*), 75c.; Alder (*Alnus glutinosa*), 75c.; Ash, Am. White, \$1.50; Ash, Black, \$1.25; Ash, Green (*F. viridis*), 75c.; Basswood, Eu. (*Tilia grandifolia*), \$3.50; Birch, Eu. White, \$2; Birch, Yellow, \$1; Birch, Canoe, \$1; Black Walnut, \$5; Catalpa, Hardy (*C. speciosa*), 75c.; Catalpa, Teas' Japan, \$1; Elm, Camperdown (*U. Campestris*), \$1.50; Honey Locust (*Gleditsia triacanthos*), \$1; Horse Chestnut (*Aesculus hippocastanum*), \$6; Kentucky Coffee Tree, \$10; Black Locust, 75c.; English Maple, \$1.60; Soft Maple (*A. dasyacarpum*), \$1; Box Elder (*A. Negundo*), 75c.; Norway Maple (*A. platanoides*), \$1.60; Sycamore Maple (*A. pseudo platanus*), \$3.50; Red Maple (*A. rubrum*), 75c.; Sugar Maple (*A. Saccharinum*), 75c.; Mountain Ash (*Sorbus aucuparia*), \$7; White Mulberry (*Morus alba*), \$5; Russian Mulberry, \$4; Tulip Tree (*Liriodendron tulipifera*), \$8.

## EVERGREENS and CONIFERS Per 100, Free Delivery—Am. Arbor Vitae, \$2

Douglas Fir, \$2; White Pine, \$3; Austrian Pine, \$2; Scotch Pine, \$2; Corsican Pine, \$3; Norway Spruce \$2.50; White Spruce, \$3; Black Spruce, \$5; Blue Spruce, \$3; Hemlock Spruce, \$3; European Larch, \$2.

## CUTTINGS Per 100, Free Delivery

Siberian Dogwood, \$5; Silver Leaf Poplar, \$1.50; Lombardy Poplar, \$1.50; Large White Poplar, \$1.50; Balsam Poplar, \$1.50; Balm of Gilead, \$1.50; Wisconsin Weeping Willow, \$1.50; White Willow, \$1.50; Yellow Willow, \$1.50; Purple Willow, \$1.50.

## SURPLUS STOCK.

We have a surplus of Hardy Catalpa, 5 to 6 feet; Russian Mulberry, 1 to 2 feet, or 5 to 7 feet; Ailanthus, 4 to 5 feet; first-class Wagner, Pewaukee, Northern Spy, Autumn Strawberry, Red Astrachan, Early Harvest, and other items that we will not refuse a fair offer for. Please let us hear from you.

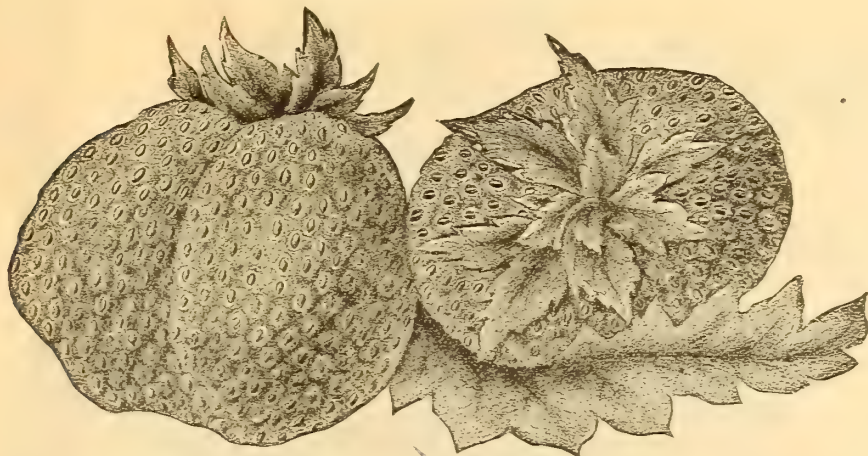
We refer those who do not know us to the Flour City National Bank, Rochester, N. Y., regarding our responsibility.

Address, **GREEN'S NURSERY CO.,**  
ROCHESTER, N. Y.

**DON'T FAIL** to submit a list of your Wants and get our Prices before placing your order for any kind or grade of Nursery Stock. Apples, Pear, Cherry, Plum, Peach, Quince, Grape, Small Fruits, Ornamentals, Apple Seedlings, and a General Line of Nursery Stock of the very best quality, in surplus, on which surprisingly low prices will be given upon application.

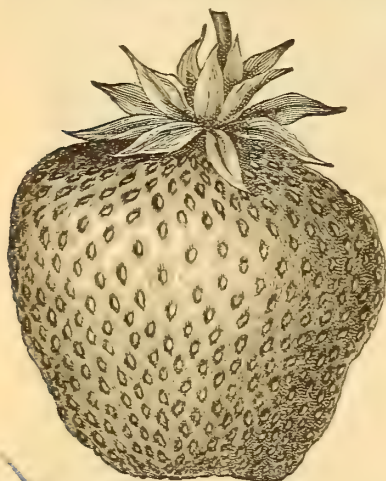
**GREEN'S NURSERY CO.,**  
Rochester, N. Y.

Send 10 cents and get three back copies of Green's Fruit Grower and our 100 page Fruit Guide, Illustrated with five colored plates.



The Bubach Strawberry.

## OUR LEADING SPECIALTIES.



Surprise Strawberry.

**THE SURPRISE STRAWBERRY.**—Sent out now for the first time after two years testing at our farm. Fruit large, conical, regular in form, dark bright crimson; flesh firm, juicy, a delightful mingling of sweetness and acidity. Plant remarkably vigorous, healthy and productive. Season medium early.

We have been looking for a berry of fine quality that was of large size and productive, and here it is. Quality in the Strawberry, like virtue in man or woman, cannot be overrated. As President Wilder says: "So long as fruits are grown to eat QUALITY should be the FIRST CONSIDERATION." Those who love a good Strawberry will not be disappointed with the SURPRISE. Price, \$1 per twelve; \$6 per 100.

**JEWELL.**—"This variety will be found to be the most profitable of any for market. T. T. Lyon, President of the Michigan Horticultural Society, says of the Jewell:—"I know of none that, with a single season's fruiting, promises better than Jewell, as an attractive, large and productive market berry." Other reports confirm this opinion. Fruit large to very large, variable in form; bright red, handsome, moderately firm; quality fair; plant very vigorous and productive; flowers pistillate. We have had fine berries on plants set last fall. One of the best of recent introduction. Price, 75c. per dozen; \$4.00 per 100.

**BUBACH.**—It originated in 1882 in a lot of about 500 kinds, many of them good. Number five, however, surpassed all others. It combines large and uniform size, fine color and form, with unsurpassed productiveness and good quality of fruit, great vigor, stockiness and hardiness of plant. The leaves are large, dark green, enduring the hottest sun. It is almost as early as the Crescent, continues about as long in bearing, and is as productive. These plants with their burden of large and beautiful berries were an object of great attraction to all who saw them. Above is the originator's description, which is endorsed by those who have seen it. It created a sensation when exhibited at the Nurserymen's Convention at Chicago, on account of large size and important features. \$1 per 12; \$6 per 100.

**SHAFFER'S COLOSSAL RASPBERRY.**—Green's Nursery Co. takes pride in having been the introducer of this favorite berry. At the Michigan meeting of the American Pomological Society it received commendation from the members of all the states present. The Prairie Farmer has collected the following reports: From reports received from prominent growers, it would seem that the Shaffer is rapidly gaining favor, especially as a canning berry. Secretary Garfield, of Michigan, expressed himself as "greatly in love with it," and states his belief that it is "the best canning raspberry known." Secretary Brackett, of the Kansas Society, regards it as "the most reliable red variety we have," and J. H. Priest, the largest raspberry grower of Indiana, considers it "the finest raspberry for table use with sugar and cream" he has seen.

While all agree that as regards quality, the Shaffer is excellent, the verdict of its perfect hardiness is even more unanimous. Professor J. L. Budd, who suspects that it may be a stray from the great East plain of Europe, states that it is the "hardest variety yet tried on the Iowa College Farm," and Mr. R. D. McGreehon



Shaffer's Colossal Raspberry.





## NEMAHA.

writes: "Shaffer has now stood three of the hardest winters Western Iowa has had since 1856-57." Other reports from Ohio, Indiana, Illinois, Michigan and Kansas all point to the same conclusion. It makes no suckers. Price, 35c. per 12; \$1.25 per 100.

**NEMAHA BLACK RASPBERRY**—We have had the Nemaha growing near the Gregg and other leading varieties, and it has proved much harder than Gregg, and we thought a little harder than Souhegan and Tyler, bearing a full crop of fruit where the Gregg was almost a total failure. We have claimed for Nemaha that it was harder than Gregg, and three years' trial proves our claim to be well founded. While the Gregg has therefore been our largest and most profitable black cap, it has failed in hardness, and we have seen for a long time that any variety that would equal it in size and productiveness, and prove harder, would be a great boon. The Nemaha fills the bill exactly, and goes farther, for it is of better quality.

Visitors who have seen the Nemaha on our grounds have said that it was the largest of all. Indeed, I have picked larger specimens from it than from any other. Price, 60c per 12; \$4 per 100.

**MOORE'S ARCTIC PLUM**—A new hardy plum which originated on the highlands of Aroostook Co., Me., about forty miles north of Bangor, on the grounds of A. T. Moore, Ashland, Me., where, unprotected and

exposed to Arctic colds, it has for many years borne enormous crops, and is claimed to be the hardiest plum known, and so far free from black knots; tree healthy, vigorous, an early and abundant bearer; branches smooth, olive brown, grayish. Fruit medium, roundish, inclining to oval; suture nearly obscure, apex a dot; skin purplish black, thin blue bloom; stalk medium, rather slender; cavity small; flesh greenish yellow, juicy, sweet, pleasant flavor, but not rich. Season first half of September. Price of large trees, 50c.

**GUII PLUM**—This Plum originated with Mr. Hagaman, Lansingburg, N. J. It was cultivated largely by John Gœuay (Guii), and was generally called by this name, but was not much disseminated until quite recently; it is now quite extensively grown for market, having proved to be one of the most profitable for that purpose; tree hardy, a very strong, vigorous upright grower, spreading with age and bearing; branches smooth, light brown, grayish. Fruit large, roundish oval, narrowing a little at the apex, which is a dot or small point; suture slight, often without any; skin dark purple, covered with a thick blue bloom; stalk long, slender, cavity large, deep; flesh pale yellow, rather firm, juicy, sweet, sprightly subacid; not a rich table fruit, but valuable for culinary purposes and market; free stone; season last of August and first of September. Price, large trees, 50c.

## RANCOCAS RASPBERRY.



"Rancocas"

Is an early red raspberry, described as follows  
 "I found the Rancocas surrounded by briers and neglected. Its vigor, productiveness, size and earliness, led me to transplant it. The bush starts late in the Spring, when it branches freely, giving it the form of a miniature tree. These branches load themselves with fruit, so as to almost conceal the leaves, presenting a mass of solid red ripe berries. The habit of the bush, in connection with the fruit, ripening so quickly, renders it the easiest and cheapest variety to pick that we have ever grown. It is a common remark of our pickers that they would rather pick the Rancocas at two cents per quart than any other variety for three cents. As regards productiveness, I have no hesitancy in stating that on the same soil and with the same care, it will produce twice as many quarts per acre as the Brandywine. The bushes have never been in the least injured by the severest Winter weather, and the foliage has never shown a trace of yellows, scald or burn." I would add, its strong points are earliness, firmness, strong growth, hardiness, productiveness, and ripening its fruit all in a short space of time. It is undoubtedly a very valuable fruit, especially for market growing. Price 75 per 12; \$4.00 per 100.



## GOLDEN QUEEN RASPBERRY.

Claimed to be of superior quality, of the greatest beauty, of the largest size, of iron-clad and fire-proof hardiness, of exceeding productiveness, of strongest growth, very firm and adheres firmly to the stem.

Prices of plants, per dozen, \$2.00; per hundred, \$12.00.





The Erie Blackberry.

**ERIE BLACKBERRY.**—"What I have been looking for these many years, and what I have at last found is a Blackberry with an iron-clad cane and producing large fruit. The Erie seems to fill the bill entirely. The canes are the strongest growing of any Blackberry I know (excelling the Snyder or Kittatiny), and absolutely iron-clad. The past Winter it was the only Blackberry that came through with me entirely unharmed, except Taylor's and Snyder. In size the berries equal Lawton or Kittatiny. The fruit, in addition to being of large size, is of excellent quality and jet black, is ripened early—between Early Harvest and Wilson Junior. The canes thus far have been entirely free from any disease or fungus." This is the description of one who has fruited it. Those who have seen it were so far pleased as to invest \$5.00 each in plants, which is a good showing. Price for strong plants, 50 cents each; \$5 per dozen; \$35 per 100.

#### STONE'S HARDY BLACKBERRY.

The above cut gives a correct idea of the productiveness of this, the most hardy blackberry of all we have tested. It is medium in size, of good quality and jet black. The bush is vigorous and has never been injured by the most severe winters with us.

Those looking for a *very hardy* blackberry cannot do better than to plant Stone's hardy. It originated in the bleak wilds of Wisconsin where tender varieties are worthless. Price 50c. per 12; \$2.00 per 100.

#### MEREDITH QUEEN.

This peculiar Raspberry, first white, gradually turning to a light pink, was recommended to me by Mr. E. S. Carman, editor of the *Rural New Yorker*, while I was visiting at his place. He said he had tested it, and advised me to propagate it, as he considered it valuable for the amateur. He could not say as to its value for the market. It is a good grower, with healthy foliage, and hardy with us. It has not fruited here yet. Price, 50c. for 12; \$3 per 100.

#### INDUSTRY GOOSEBERRY.

Very large, dark cherry color, with numerous hairs and of delicious quality. Ellwanger & Barry state they believe it will "revolutionize Gooseberry culture in this country;" and describe it as unequalled for size,

flavor, productiveness and vigorous growth. It is of foreign origin. The introducers have fruited it several years, it proving with them, "an immense yielder and showing no signs of mildew." Having eaten the fruit I can vouch for its large size and high quality. Price 40 cents each; \$4.00 per dozen.

**THE CATALPA SPECIOSA**, or Western Catalpa is a valuable tree. Its hardiness has been tested up to 43 deg. north latitude. It is more upright and symmetrical in its growth, and harder than the Common Catalpa. I have personally examined into, and found positive proofs in numerous cases of, this timber having stood as fence posts for a great number of years without decay. Its great durability, its tenacity of life, the ease with which it is transplanted, and its rapid growth, make it, in my opinion, one of the most profitable trees for forest growth, south of the 43 deg. Price 1c. to 25c.

#### SHAFFER RASPBERRY.

This noble variety has earned a national reputation for hardiness, extraordinary vigor and productiveness, large size and good quality. At the recent meeting of the American Pomological Society at Michigan no variety of fruit received such universal praise as this. We take pride in being the introducers of Shaffer. We have the finest plants now that we ever grew and can fill orders any day desired. Buy your Shaffers of the originators.

Price 35c. per 12, \$1.25 per 100.

#### SEEDLING APPLE, PEAR, CHERRY, ETC.

If you want seedlings for budding or grafting apply to us for prices, stating how many of each you need. We are importing from France Pear and other stocks that are superior in all respects. Whatever you need in the way of trees, vines or plants, send us your list of wants and we will attach prices.

**The Russian Mulberry** is a handsome and hardy ornamental tree. Its timber is one of the best for fence posts, etc. Its fruit is variable—often good for the table, always valuable for fowls. We offer all sizes of these trees very cheap, send for prices. GREEN'S NURSERY CO., Rochester, N. Y.





### MARLBORO RASPBERRY.

This noble variety has fruited on our place for three years. It is no longer an experiment with us. We are prepared to make a positive statement in regard to its claims for popularity as a market, or a home berry.

First. It has proved hardy. This is a trait of great importance to us, as our soil is very trying on plants during the winter, and nothing but such ironclads as Turner, Philadelphia, Reliance, and a few others pass the winter successfully. We watched the Marlboro with great trepidation, and are happy to announce that it stood the test, and may be classed with great reputation, and are happy to

among the hardy varieties of Western New York, and varieties that are hardy here, are hardy West. Last winter was one of the most severe on plants of any that we have ever known. The Marlboro endured this remarkable severity, and bore a full crop of berries this season.

Second. The quality is good, and such as will satisfy the majority. It ranks, in this respect, with Cuthbert, the quality of which no one complains of.

Third. It is the largest berry of its class, is beautifully formed, and is exceedingly firm, enduring long shipment well.

Fourth. The canes are remarkably stout, stocky, and vigorous in growth, are not easily bent down with the load of fruit, or sent sprawling about by the wind.

Fifth. It remains long in bearing, furnishing a supply of tempting berries during two weeks.

The above are the principal strong points of the Marlboro, which, combined, make it one of the most valuable and profitable berries for home use and for market that we have tested, and we have tried almost everything that has been introduced for many years past. The Cuthbert has held for many years a noble position, and is, indeed, a remarkable berry, but, in our opinion, it is surpassed by the Marlboro, which is larger, firmer, brighter in color, more stocky in growth, more enduring foliage, and more productive.

When the Marlboro was first sent out, we paid \$100 in cash for a package of plants that we could have thrust into our coat-tail pocket. Every plant lived and thrived. It is a peculiarity of this variety that it is easily transplanted, and it is an important qualification, as many varieties, like the Hansel, are difficult to propagate and difficult to transplant. We have spent more time in attempts to propagate the Marlboro rapidly, than we have spent with any other variety of fruit on our place, thus we have now growing upon our farm a large field of Marlboro. I have just come in from a visit to this plantation. The field stretches from our orchard to a piece of timber nearly a quarter of a mile distant. The field was planted one year ago last spring, in June, with green plants that had sprouted from the spot where the parent plants had been dug. We transplanted when only as large as darning needles, and scarcely longer. Many of them at the time of transplanting had not grown above the surface, and after planting could not be seen. It did not seem possible that such infantile plants could ever succeed. The Marlboro was so high priced at that time, selling for \$1.00 each, that we planted them in rows seven feet apart. After planting the field, a severe frost fell upon the young plants, the white grub fed upon their roots, and droughts came to add to our discouragement. Notwithstanding all these adverse circumstances, this field is to-day a mass of Marlboro plants, many of the canes larger than my thumb, and all exceedingly vigorous and well rooted. We propose to dig every plant upon this field for sale to our customers. After digging, we shall cultivate the field thoroughly with a two-horse cultivator as though nothing had been planted there, expecting that next spring young plants will appear thicker than ever. Price 35 cts. per dozen; \$1.00 per hundred; \$8.00 per 1000.

**PLUM AND CHERRY trees, medium, 20 cents. Russian Mulberry, Hardy Catalpa, Arbor Vitae at about your own price. Send for prices of Apple, Pear and other seedlings.**

**Address GREEN'S NURSERY CO., Rochester N. Y.**





#### BLACK-CAP RASPBERRIES.

**Culture**—Plant in rows 3x7 feet. Do not plant too deeply—this is a frequent cause of loss—never deeper than two inches, and be careful not to break the tender germ. If broken it will grow, but makes more canes, and gets started later. After the young germ appears above ground no part of the old cane should be left on, as it will bear fruit and enfeeble the plant. Never hoe deeply about young plants. Cultivate often, both ways the first two years, but do not cultivate very deeply, especially near plants, as most small fruits root near the surface.

No pruning is necessary the first year. After years cut off the young canes when two feet high. Then they will branch out and need no stakes—forming a hedge. Trim side branches when too long. For all small fruits prepare soil thoroughly by deep plowing, etc., and the soil should be made fertile. When the old plants have borne four or five years it is often best to plow up and plant fresh fields. Raspberries and blackberries do well in the partial shade of orchards, if the soil is kept rich enough to sustain both the plants and the trees. Plant immediately on arrival or heel them in a shady place.

#### VARIETIES OF BLACK-CAP RASPBERRIES.

**Tyler**—This is one of those varieties that have made their own way, quietly, and without commendation to public favor. The demand for it by those who have learned its value has been beyond the ability of any one to supply. We have always been short of plants, though having a good stock early in the season. Second to none in earliness it comes in at the close of the season neck and neck with the Souhegan, and is surpassed by none in all that pertains to a valuable market or home

berry. I have never seen a rusty plant, never saw one with tips Winter-killed, never saw a plant fail to be loaded down with such a grand show of fruit. It would enthrall the laziest boy alive with energy to pitch in to fill his baskets. The bushes thus laden are a beautiful sight. We wish the reader could see our plantation in bearing.



SOUHEGAN BLACK-CAP.

GREEN'S FRUIT GROWER is published at Rochester, N. Y., quarterly, at 50 cents per year. It has a circulation of 20,000 copies, and tells the truth about fruit culture. C. A. Green, Ed.



✓ THE SHAFFER RASPBERRY.

From a number of reports received from prominent growers, it would seem that the Shaffer is rapidly gaining favor, especially as a canning berry. Secretary Garfield, of Michigan, expressed himself as "greatly in love with it," and states his belief that it is "the best canning raspberry known." Secretary Brackett of the Kansas Society, regards it as "the most reliable red variety we have," and J. H. Priest, the largest raspberry grower of Indiana, "considers it the finest raspberry for table use with sugar and cream" he has seen.

While all agree that as regards quality, the Shaffer is excellent, the verdict of its perfect hardiness is even more unanimous. Professor J. L. Budd, states that it is "the hardiest variety yet tried on the Iowa College Farm," and Mr. R. D. McGeehon, of the same State, writes: "Shaffer has stood three of the hardest winters Western Iowa has had since 1856-57." Other reports from Ohio, Indiana, Illinois, Michigan and Kansas all point to the same conclusion. Price 35 cents per 12; \$1.25 per 100.



## THE "HILBORN" RASPBERRY

is a new black-cap from Canada. I received it from the originator, W. H. HILBORN, who speaks of it as follows:

"About seven years ago I transplanted a number of seedlings that came up in an old plantation: when they came to fruit, this one was found to have decided merit. I have been fruiting it every year since, and now consider it the most valuable of any variety grown, either for home use or market. I have found it more profitable than Mammoth Cluster, Gregg, Souhegan, Tyler, or any other I have ever grown. It will average larger than any other black cap, with perhaps the single exception of the Gregg; jet black, very productive and of better quality than any other black cap I have seen. It begins to ripen about two days later than Tyler or Souhegan, and continues longer than most sorts. It is a strong grower, with but few thorns, and as hardy as any variety grown by me."

T. C. Robinson, a prominent fruit grower and horticultural writer, of Ontario, says:

"I have now fruited the 'Hilborn' black cap on full grown plants, and in spite of poor treatment I find it a fine grower, and quite productive, while the fruit is very black, large, firm and delicious. It certainly merits favorable consideration."

John Little, one of the most reliable and best posted fruit growers of Canada, in writing to Mr. Hilborn, uses these words:

"The raspberry plants you sent me are all that can be desired. Fruit large and plenty of it. Berry larger than either Tyler or Hopkins, ripening here a few days after Hopkins, and giving fruit when the others are all done."

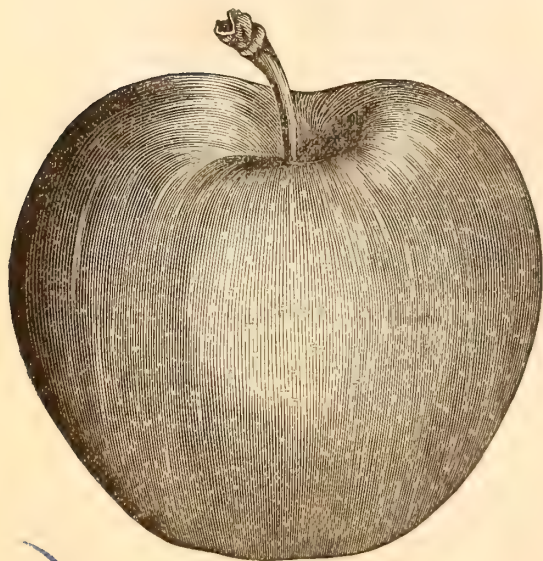
This variety has fruited twice on my place, and I believe it to be all that is claimed for it. It is a very vigorous grower, a good bearer, and, so far, perfectly hardy. It bore a heavy crop in '84, while the blossoms of nearly all others were killed by a severe frost on the 28th of May. While all these qualities are very desirable and almost indispensable, the superiority of its fruit is the prominent characteristic of this variety. This, together with its habit of growth and productiveness, is a sufficient excuse for putting another berry on the market.

Any intelligent fruit grower knows that a black cap as large as the Gregg, jet black, and of very superior flavor, is greatly to be desired. This is just about what the "Hilborn" is.

The supply of plants is not large, and may be exhausted soon. None will be sold by the thousand.

Price, 75 per dozen, \$5 per 100. Free by mail at dozen rates.

Plants will be carefully packed in moss and delivered at express office without extra charge.



Salome Apple.

**SALOME APPLE**—Charles Downing said of this Apple, "The quality is very good. Its hardiness, long-keeping, good quality, uniform size, retention of its flavor, quite late, even into summer, will, no doubt, make it valuable for the west and north-west."

**THE SALOME**—Originated in Illinois, and is especially valuable for its hardiness, prolific bearing and long keeping. The tree comes into bearing early. The tree is round-headed, making short annual growths after coming into bearing; is a fair grower in nursery; has tough wood, large, thick, leathery leaf, and is as hardy as the wild crab. No matter how heavily loaded, the fruit is always good-sized, and sticks to the tree with tenacity which overcomes the winds when other varieties are scattered on the ground. Its bunches being shouldered like the Early Harvest, carry immense loads of fruit. It has been kept entirely sound in a barrel for twelve months, retaining its peculiar flavor to the last. Price 60 cents; in bud, 25 cents.



New Hardy Cherry Dyehouse.

**DYEHOUSE CHERRY**—Origin unknown. It was introduced by H. T. Harris, of Stamford, Ky., and was found growing in an old Morello orchard, on the farm of Mr. Dyehouse over thirty years since; it is still growing there from suckers; and is claimed to be hardy, moderately vigorous, somewhat spreading, of the Morello type, but partakes both of the Morello and



The Russian Apricot.

Duke in growth, wood and fruit; a very early and sure bearer; ripens a week before Early Richmond, is about the same size, of better quality, and quite as productive. Fruit medium, oblate or roundish oblate, slightly depressed, without suture; apex slightly depressed; skin bright red, dark red in the sun; stalk of medium length; slender; cavity rather large, smooth; flesh soft, juicy, tender sprightly subacid, rich; pit very small; sometimes the stalk adheres to the pit. Price, large trees, 50c.

## WINDSOR CHERRY.

John J. Thomas speaks as follows of this new cherry in the Country Gentleman: "A package was received containing fine specimens of Windsor Cherry. The tree is vigorous, hardy, and an early and good bearer. It is a variety of high promise. The specimens measured seven-eighths of an inch in diameter, some of them very nearly an inch; they are obtuse, heart-shaped, dark purple or nearly black, the flesh quite firm, fine in texture, and rich in flavor. The Windsor ripens late, or a few days after Elkhorn or Tradescant, and is firmer and better in quality." Price, large trees, 75 cents; very small, 35 cents.

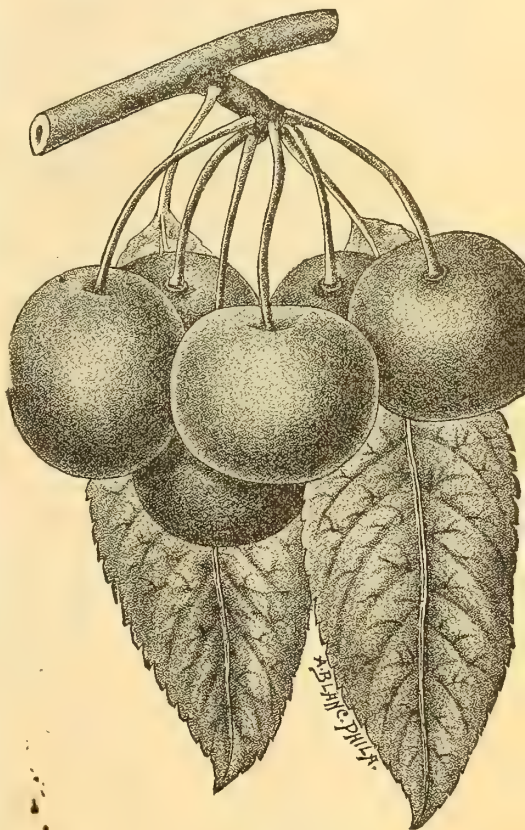
## RUSSIAN APRICOT.

John J. Thomas mentions twenty varieties of the Apricot, and adds: "It is remarkable that a fruit of such excellence ripening from one to two months before the best early peaches, should be so little known. It is more like the plum than the peach, yet resembles both, partaking of the peach's flavor and excellence. It is liable to attacks of curculio and should be defended like the plum." Professor Bud considers the Russian Apricot the hardest of all, in which we concur, it having withstood 30° below zero without injury, while ordinary kinds were frozen to the earth. It is remarkably free from insects and disease. In Kansas and Nebraska where planted by emigrants from Russia, scarcely an unhealthy tree can be found. Fruit medium in size and of good quality.

Price, for Russian Apricot, 35c. each; \$3.50 per 12.

Other Apricots, 25c. each.

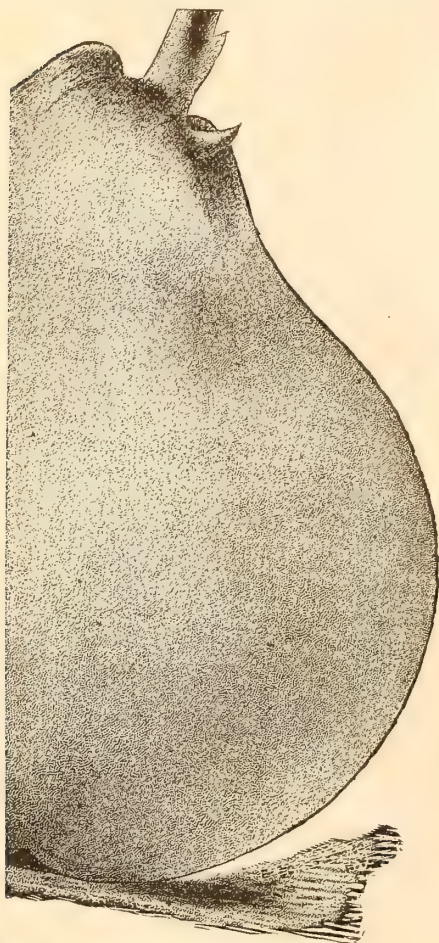
**BEURRE BOSCH PEAR**—This is a Pear to which we give our unqualified praise. It is large, handsome, a regular bearer, always perfect, and of the highest flavor. It bears singly, and not in clusters, looking as if thinned on the tree, whence it is always of fine size. It was raised by Van Mons, and named Cabbage Bosc in honor of M. Bosc, a distinguished Belgian cultivator. Having also been received at the garden of the Horticultural Society of London under the name of Beurre Bosc, Mr. Thompson thought it best to retain this



The Windsor Cherry.



name. The tree grows vigorously. Shoots long, brownish olive. Fruit large, pyriform, a little uneven, often tapering long and gradually into the stalk. Skin pretty smooth, dark yellow, a good deal covered with streaks and dots of cinnamon russett, and slightly touched with red on one side. Stalk one to two inches long, rather slender, curved. Calyx short, set in a very shallow basin. Flesh white, melting, very buttery, with a rich, delicious, and slightly perfumed flavor. Quality, best. Ripens gradually from the last of September to the last of October. Price, large trees, 50c.

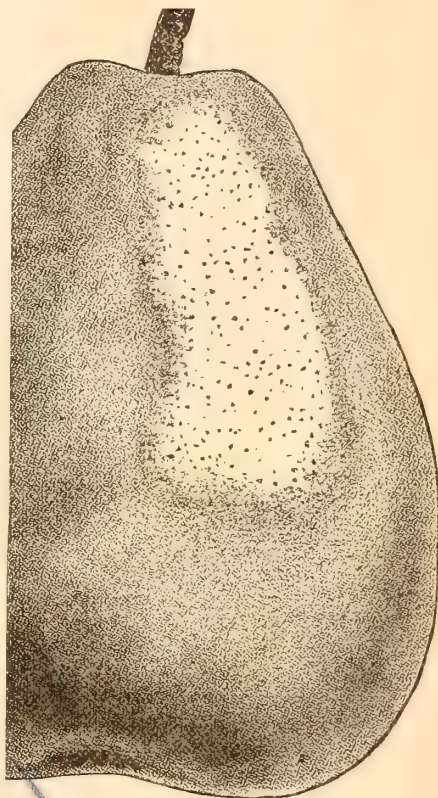


MEECH'S PROLIFIC QUINCE.

"The trees of this variety often make a growth of over 5 feet the first year. In 1881, a three-year-old tree grew seven feet and seven inches; and in 1883, bore over half a bushel of quinces, as handsome as the finest oranges, besides making a growth of about six feet. Trees of this variety are remarkable for productiveness. It is preeminently prolific. The trees often blossom the next year afterward with such abundance as to need a vigorous thinning to prevent injury from overbearing. The fruit of Meech's Prolific quince is superior in every excellence of beauty, size, fragrance and flavor. Its prevailing shape is much like a handsome pear. It is very large as well as handsome and attractive. Eighty quinces of the largest size that grow by good culture make a bushel, weighing from twelve to fifteen ounces each. In 1883 a specimen grew to eighteen ounces on a full bearing tree. But

large as it grows with fair cultivation, its size is not its chief merit. Its delightful fragrance and its delicious flavor are among its most excellent qualities. A basket of this fruit will perfume a large room with its aroma."

The above is the originator's description. Price, one year, strong, \$1.50 each; or in dormant bud for 50 cents each.



LAWSON OR COMET.

"This remarkable Summer pear is not only the most beautiful in appearance, but also the largest early pear yet produced. The fruit is so beautiful that it sold in the markets of New York the past season, and for many years, as high as \$4.00 per half bushel crate; and as the tree is a heavy annual yielder, the profits to be derived from it are apparent. As it is a good shipper there is nothing, perhaps, that can be planted by the fruit grower (particularly at the South) that will yield such lucrative returns.

The original tree, now supposed to be over one hundred years old, sprouted in the cleft of a rock on a farm formerly belonging to John Lawson, in Ulster County, N. Y., where it still stands; and during its long life has never been affected with blight or other disease, nor injured by insects; maintaining perfect health and vigor. The fruit may be described as exceedingly large for an early pear, and cannot be surpassed in point of color, which is a most beautiful crimson on a bright yellow ground. "It seems to absorb and reflect the first rays of the morning sun, and becomes more brilliant in clear, dry weather." The flesh is crisp, juicy, and pleasant, but not of high quality. Ripens in Central New York from middle of July to first of August (and of course correspondingly earlier in locations further South), and possesses superior keeping and shipping qualities. The tree is a good grower, a prolific annual cropper and begins bearing young."

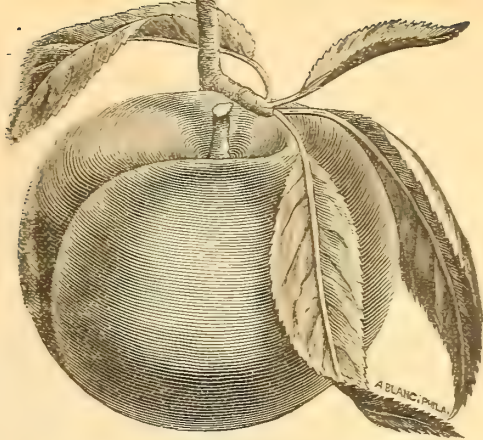
In dormant bud, 50c.; one year old, \$1; 5 to 6 for \$2.

American Horticulturist, Detroit, Mich., price \$1 per year, with Farm and Home (twice a month) and Fruit Grower, and Green's Grape Culture or Green's Strawberry culture, all one year for \$1.

## PRUNUS SIMONI.

Professor Budd, the authority on hardy fruits, bestows great praise upon the merits of the *PRUNUS SIMONI*, which he considers a happy cross between the Peach and Plum. He mentions it as being one of the most valuable fruits of recent introduction. It is certainly a great novelty in the fruit line, and is said to be hardy, to fruit early, and to be exceedingly productive.

Prof. Budd is the best informed person regarding *Prunus Simoni* and his positive claim for its superior beauty and excellence gives it value in our estimation. Price, for small trees, 50 cents; large, 75 cents each.



*Prunus Simoni.*



## CLETHERA ALNIFOLIA.

Mr. Parsons, of Flushing, thus calls attention to the *Clethera*: "I never knew it to fail to bloom. Cold never harms it. The honey made from it is almost white, thick, and of fine flavor. Its leaves are light green; flowers pure white, in spikes 3 to 6 inches long. A group of *Clethera* will perfume the air for a long distance; a handful will fill a room with delightful fra-

grance. It blooms from July 1st to September; its cultivation is simple, thriving where the lilac will succeed. It never fails to bloom after a hard winter. Its effect is impressive in large masses. It is a neat, upright growing shrub. Its fragrance in a bouquet is as strong and enduring as the *Tuberose*." Price, for strong plants, 50 cents each.



## OUR CLUBBING OFFERS. AS GOOD AS GOLD.

### Money Saved to Subscribers of all Periodicals.

Remember that we agree to furnish any Paper or Magazine published at low prices. We offer each paper named in the List below with Green's FRUIT GROWER, and your choice of books, for the price named in each instance. Here is the List of Books.

**Forest Leaves**, 68 pages with six beautiful lithographic colored plates, telling about the planting and culture of ornamental and forest trees, price 50 cents.

**The Grape**, 48 pages, by Charles A. Green.

**The Strawberry**, 48 pages, by Charles A. Green.

**How to Propagate and Grow Fruit**, by Charles A. Green.

**Fisher's Log Book**, 160 pages.

**Scribner's Grain Tables**, 160 pages, both full of information for the ruralist, aside from the main topic discussed.

**Health Hints**, 128 pages.

**Poultry for Pleasure and Profit**, 48 pages.

**YOUR CHOICE** of above books will be mailed (postage paid) together with Green's FRUIT GROWER for one year, as follows:

**American Horticulturist**, Detroit, Mich., an excellent monthly, price \$1 per year, with Farm and Home (twice a month) and Fruit Grower, and Green's Grape Culture and Green's Strawberry Culture (or your choice of books) all one year, for \$1—the most liberal offer ever made.

**American Agriculturist**, Fruit Grower and choice of books, \$1.50.

**American Garden**, Fruit and Grower your choice of books, \$2.00.

**American Sheep Breeder**, Fruit Grower and your choice of books, \$1.10.

**American Rural Home (weekly)**, Fruit Grower and choice of books, \$1.

**Arthur's Home Magazine**, Fruit Grower and choice of books, \$2.

**Babyland**, Fruit Grower and choice of books, 75c.

**Chautauqua Young Folks' Journal**, Fruit Grower and choice of books, \$1.25.

**Country Gentleman (weekly)**, Fruit Grower and choice of books, \$2.30.

**Century Magazine**, Fruit Grower and choice of books, \$4.

**Cricket on the Hearth**, Fruit Grower and choice of books, 1.25.

**Colman's Rural World (weekly)**, Fruit Grower and choice of books, 1.60.

**Democrat and Chronicle** (large and excellent weekly, Rochester, N. Y.), Fruit Grower and choice of books, 1.25.

**Demorest's Monthly**, Fruit Grower and choice of books, \$2.

**Dairy World**, Fruit Grower and choice of books, \$1.25.

**Empire State Agriculturist**, Fruit Grower and Green's Book on Strawberry Culture, and Green's Book on Grape Culture, 50 cents.

**Farm Journal** (Philadelphia), Fruit Grower and choice of books, 60 cents.

**Farm and Home** (Springfield, Mass.), Twice a month for 1887 with Fruit Grower and choice of books, 50 cents.

**Farm Guide**, Fruit Grower and choice of books, 60c.

**Farmer and Manufacturer**, Fruit Grower and choice of books, 60c.

**Farm and Garden** (Philadelphia), Fruit Grower and choice of books, 60 cents.

**Farm and Fireside** (Ohio), Fruit Grower and Green's Book on the Grape and Green's Book on the Strawberry, 75 cents.

**Good Cheer (monthly)**, Greenfield, Mass., Fruit Grower and choice of books, 50 cents.

**Gardener's Monthly**, Fruit Grower and choice of books, \$2.

**Godley's Ladies' Book**, Fruit Grower and choice of books, \$2.

**Housewife (monthly)**, Greenfield, Mass., Fruit Grower and choice of books, 50 cents.

**Harpers' Monthly** (or Harpers' Weekly, or Harpers' Bazar), Fruit Grower and choice of books, \$4.

**Household**, Brattleboro, Fruit Grower and choice of books, \$1.20.

**Ladies' Home Journal**, Fruit Grower and choice of books, 85c.

**Ladies Floral Cabinet**, Fruit Grower and choice of books, \$1.40.

**Lippincott's Magazine**, Fruit Grower and choice of books, \$3.

**New York Tribune**, Fruit Grower and choice of books, \$1.25.

**New York World (weekly)**, Fruit Grower and choice of books, including the History of United States, \$1.35.

**Our Country Home (monthly)**, Greenfield, Mass., Fruit Grower and choice of books, 50 cents.

**Ohio Farm**, Fruit Grower and choice of books, \$1.25.

**Orchard and Garden**, Fruit Grower and choice of books, 75 cents.

**Our Little Men and Women**, Fruit Grower and choice of books, \$1.10.

**Popular Gardening**, Fruit Grower and choice of books, \$1.10.

**Poultry Keeper**, Fruit Grower and choice of books, 75 cents.

**Poultry Monthly**, Albany, Fruit Grower and choice of books, \$1.35.

**Peterson's Magazine**, Fruit Grower and choice of books, \$2.

**Philadelphia Press**, Fruit Grower and choice of books, \$1.50.

**Prairie Farmer**, Fruit Grower and Choice of books, \$1.50.

**Rural New Yorker** (its seeds), Fruit Grower and 2 Jessie Strawberry plants, \$2.

**Seed Time and Harvest**, Fruit Grower and choice of books, 65 cents.

**The Fanny**, Fruit Grower and choice of books, \$1.10.

**The Florida Despatch**, a 20-page Agricultural Weekly, containing full information about Florida, Regular subscription \$2.00 per year, with Fruit Grower and 2 Jewell Strawberry plants for \$2.

**Vick's Magazine**, Fruit Grower and choice of books, \$1.25.

**Wide Awake**, Fruit Grower and choice of books, \$2.40.

**Youth's Companion** (new subscribers only) Fruit Grower and choice of books, \$1.75.

We can club with any publication on favorable terms. If you wish several journals, send us a list of those you desire and we will attach very low prices. Notice that the prices given above are in most cases simply the subscription price of the leading publications named, and that we offer several papers and a 16-page book often for the price of one paper.

We do not name above one hundredth part of the publications we can club with, because we have not the space to print them here.

NOTICE that we offer **FARM & HOME** (twice a month for 1887), or **OUR COUNTRY HOME**, or **GOOD CHEER** or **THE HOUSEWIFE**, either one with **FRUIT GROWER**, and your choice of books for 50 cents, and that we take postage stamps for less than one dollar, that we prefer postal note, postal order or registered letter. Do not send checks. To strangers we would say that Charles A. Green refers, by permission, to Hon. C. R. Parsons, mayor of Rochester, N. Y. All who send us soc. for papers, etc., will get a package of Deacon's Lettuce, or Pyrethrum Seed, if they ask for it at the time. Address

GREEN'S FRUIT GROWER, Rochester, N. Y.

# FRUIT DEPARTMENT.



## APPLES.

The first fruit, both in importance and general culture, is the apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of Summer, Autumn, and Winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard. As it takes from six to eight years for an orchard to come into bearing, some people hesitate to plant, regarding the time and expense in a great measure lost. In reply to this we would quote the remarks made by O. C. Chapman, of East Bloomfield, N. Y., to J. J. Thomas. He said he considered the yearly growth of each apple tree planted in his immense orchard of over one hundred and fifty acres, to be worth fully one dollar before they commenced bearing. He has had experience of nearly half a century, and he says that he considers this a low estimate. At fifty trees per acre, this would make a yearly increase of value of fifty dollars per acre, which, no doubt, is quite within the mark.

As fruit has become cheaper on account of the increased supply, a large and constantly increasing European export has sprung up which affords highly remunerative prices for the best selected specimens of our orchards, while the new process of "Evaporation" of fruit has become a recognized auxiliary to the horticulture of the land. With immense consumption by this process of evaporation, it may be doubted if apple orcharding will ever in any season be less than highly remunerative. All the surplus of orchards—all "wind-falls" and defective specimens can at once be gathered and sold at a fair price to the evaporating establishments which now exist in almost every town in all fruit-growing sections.

If apples are planted at the rate of fifty trees per acre, rows of peach trees can be planted between the apples, which, growing more quickly than the apple trees, soon protect them from the winds, and thus are a great benefit to them. After eight or ten years of productiveness, as the space is needed for apples, the peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his trouble.



### DWARF APPLES.

The planting of Dwarf Apples has been attended with gratifying success. Almost all sorts succeed equally well when worked upon Paradise or Doucin stock; the former producing a very small tree or shrub; the latter a tree of considerable size, reaching sometimes to 10 or 12 feet in height. These commence bearing fruit the second year after planting, and being as healthy as standard trees and productive are a great ornament and satisfaction. They should be planted from six to eight feet apart, and will produce fruit without the delay attending standard. Being trained low, they are valuable for the West. Taking up but little room, they are especially adapted to village gardens of small extent, giving the owners a constant and sure supply of choice fruits, far superior to any which can be bought in market.

### RUSSIAN AND OTHER HARDY APPLES.

Great interest is now manifested in what are known as Russian and "Iron Clad Apples"—varieties sufficiently hardy to stand the extreme climate of the North and North-west and yet possessing the merits in quality and size of the standard sorts of a more temperate region. So great has been the development in this direction, and so numerous and valuable have the kinds become that the complaint is no longer valid that good fruit cannot be produced in the far North or North-west. We mention as among the best and most prominent sorts, Duchess of Oldenburg, Tetofsky, Haas, Pewaukee, Wealthy, Walbridge, Alexander, Mann, McIntosh, Red, Rubicon, Red Beitigheimer, New Brunswick and Yellow Transparent.

### SUMMER.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Mod.	American Summer Pearmain—Medium, oblong; striped and dotted with red; tender, juicy and rich; good bearer.	Sept.
Free.	Astrachan Red—Large, roundish, nearly covered with deep crimson, overspread with a thick bloom; juicy, rich, acid, beautiful; a good bearer.	Aug.
Free.	Benoni—Medium size, nearly round; deep red, with rich flavor.	Aug.
Mod.	Carolina Red June ( <i>Red June</i> )—Medium size, red; flesh white, tender, juicy, sub-acid; an abundant bearer.	June.
Mod.	Early Harvest—Medium size, round, straw color; tender, sub-acid and fine; productive.	Aug.
Mod.	Early Strawberry—Medium; roundish; handsomely striped with red; excellent; productive.	Aug.
Free.	Early Ripe—A large yellow apple, ripening with or immediately after the Early Harvest; a popular market fruit.	July.
Free.	Golden Sweet—Large, pale yellow, very sweet and good; good bearer.	Aug.
Free.	Jefferis—Rather large, roundish; yellow skin striped with red; very rich, tender and juicy. This very beautiful variety is unsurpassed for the dessert.	Aug. & Sept.
Free.	Keswick Codlin—Large, tender, juicy; excellent for cooking; productive, and early in bearing.	July to Oct.
Mod.	Primate—Above medium, straw color, tinged with blush; tender, juicy and sub-acid; abundant bearer.	Aug. & Sept.
Mod.	Sweet Bough—Large, pale greenish yellow; tender and sweet; good bearer.	Aug.
Mod.	Summer Queen—Medium to large; yellow, streaked with red; flesh tender, with an acid, aromatic flavor.	July & Aug.
Free.	Sops of Wine—Medium size, red; flesh white, often stained; mild and pleasant; productive.	Aug. & Sept.
Mod.	Tetofsky—A Russian apple, profitable for market growing; bears extremely early, usually the second year after transplanting, and bears every year; hardy as a Crab; fruit good size, yellow, beautifully striped with red; juicy, pleasant, acid, aromatic.	July & Aug.
Mod.	Williams' Favorite—Above medium size; deep red; mild and agreeable; good bearer.	July & Aug.
<b>AUTUMN.</b>		
Free.	Autumn Strawberry—Medium streaked; tender, juicy, fine; productive and very desirable.	Sept. & Oct.
Vig.	Colvert—A large, roundish striped apple; flesh whitish, juicy, sub-acid; valuable for market.	Oct. & Nov.
Vig.	Chenango Strawberry (Sherwood's Favorite)—Color whitish, shaded, splashed and mottled with light and dark crimson; flesh white, tender and juicy.	Sept. & Oct.
Free.	Duchess of Oldenburg—Russian, medium to large size; skin yellow, streaked with red, and somewhat blushed, sometimes with a faint blue bloom; flesh juicy and good, with a rich, sub-acid flavor; productive.	Sept.

**PRICES—DWARF APPLES** are of varieties as follows only; Wealthy, Wagner, Early Harvest, Sweet Bough, Haas, Twenty Ounce, Fameuse, Grimes Golden, Mann, Alexander, Baldwin, Red Astrachan, Duchess of Oldenburg, King, Tetofsky, Walbridge, R. I. Greening, Maidens Blush; 20c. each.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Fall Pippin</b> —Very large, yellow; tender, juicy and rich; fine in all localities.	Oct. to Dec.
Vig.	<b>Fall Jannetting</b> —Large, greenish yellow, with a faint blush; flesh yellow, juicy and crisp, sub-acid.	Oct. & Nov.
Vig.	<b>Fall Orange</b> —Large size, nearly round; yellow, sometimes a little dull red; rather acid; excellent for cooking; a very early and abundant bearer.	Nov.
Free.	<b>Gravenstein</b> —Large, striped and beautiful; tender, juicy and high flavored; productive.	Sept. & Oct.
Vig.	<b>Haas</b> (Gros Pommier, Fall Queen)—Medium to large, slightly conical and somewhat ribbed; pale greenish yellow, shaded and striped with red; flesh fine white, sometimes stained, tender, juicy, sub-acid, good; bears early and abundantly.	Oct. & Nov.
Free.	<b>Jersey Sweet</b> —Medium, striped red and green; very rich, sweet and pleasant; good bearer.	Sept. & Oct.
Free.	<b>Lady Henniker</b> —Fruit very large; roundish, with blunt angles on the sides; skin yellow on the shady side, with faint blush of red on the side next the sun; flesh tender, well flavored, and with a pleasant perfume. Valuable for cooking, also as a dessert apple. Tree a free grower, very healthy, and a great bearer.	Oct. & Nov.
Free.	<b>Lord Suffield</b> —An English variety; very large, conical; skin nearly white. A valuable kitchen apple and a most prolific variety. A moderate grower.	Nov.
Free.	<b>Lowell or Orange</b> —Large, roundish, slightly conical, green, becoming rich yellow; surface oily, flesh yellowish white, sub-acid, excellent; good bearer.	Sept. & Oct.
Free.	<b>Maiden's Blush</b> —Rather large, oblate, smooth, regular, with a fine, evenly shaded, red cheek or blush on a clear, pale yellow ground; flesh white, tender, sprightly, with a pleasant, sub-acid flavor; bears large crops.	Sept. & Oct.
Vig.	<b>Munson Sweet</b> —Large, pale yellow, with red cheek; tender, rich and good; fine bearer.	Oct. to Jan.
Free.	<b>Pumpkin Sweet</b> (Lyman's)—Very large, roundish; skin smooth, pale green, becoming yellow next to the sun; flesh white, sweet, rich and tender; valuable for baking.	Sept. to Dec.
Slow.	<b>Porter</b> —Rather large, regular, oblong, tapering to the eye; skin bright yellow, sometimes a dull blush in the sun; flesh tender, rich, sub-acid; flavor fine; fair and productive.	Nov.
Vig.	<b>Rambo</b> —Medium, yellowish, streaked with dull red and somewhat dotted; mild, tender, good and productive.	Oct. to Dec.
Free.	<b>St. Lawrence</b> —Large, yellowish, streaked and splashed with carmine; flesh white, lightly stained, crisp, juicy, tender and vinous; tree hardy and productive.	Sept. & Oct.
Free.	<b>Twenty Ounce</b> (Cayuga Red Streak)—Very large, nearly round; yellow, striped with red; quality good; good bearer; popular as a market variety.	Nov. & Dec.

## WINTER.

Vig.	<b>American Golden Russet</b> (Bullock's Pippin, Sheep Nose)—Medium or small, roundish ovate; clear golden russet; very tender, juicy, rich; more resembles in texture a buttery pear than an apple; good bearer.	Nov. to Jan.
Slow.	<b>Bailey's Sweet</b> —Fruit large, round, mottled and striped deep red; flesh yellow and tender, with a mild, rich, sweet flavor.	Oct.
Vig.	<b>Baldwin</b> —Large, roundish; deep bright red; juicy, crisp, sub-acid, good flavor; very productive of fair, handsome fruit; one of the best and most popular Winter apples.	Jan. to April.
Vig.	<b>Ben Davis</b> (New York Pippin, Kentucky Streak, &c.)—Large, handsome, striped, and of good quality; productive; a late keeper; highly esteemed in the West and Southwest.	Dec. to March
Vig.	<b>Canada Reinette</b> —Extra large size; color light greenish yellow, with frequently a faint blush on the side exposed to the sun; many small, dark specks suffused with light green beneath the skin; flesh white, juicy, crisp, sharp, sub-acid.	Dec. to May.
Vig.	<b>Cranberry Pippin</b> —A strikingly beautiful apple, and excellent for cooking; smooth, light yellow, with a bright scarlet cheek; juicy, sub-acid.	Nov. to Feb.
Free.	<b>Cooper's Market</b> —Medium size; conical; shaded and striped with red on yellow; flesh white and tender, with a brisk, sub-acid flavor; hardy and productive.	Dec. to May.
Free.	<b>Clermont</b> —New, and said to resemble in appearance the Yellow Newtown Pippin; fruit medium to large, somewhat irregular; skin smooth, except where russet prevails; rich orange yellow when ripe; flesh firm till fully ripe; rich yellow, fine grained, mild, sub-acid, rich and very good.	Feb. & March

**PRICES**—SUMMER: Standard, Astrachan, E. Harvest, E. Strawberry, Golden Sweet, Sweet Bough, Sops Wine, Tetofsky, six feet, price 18 cents, others 25 cents. AUTUMN: Autumn Strawberry, Chenango Strawberry, Duchess, Fall Pippin, Haas, Lady Henniker, Maiden's Blush, Munson Sweet, Pumpkin Sweet, St. Lawrence, Twenty Ounce, price 18c. each; medium size 15c., other kinds 25c.



HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>English Russet</b> —Fruit medium size, very regular; slightly conical; pale greenish yellow, about two-thirds covered with russet; flesh yellowish white, firm and crisp, with pleasant, slightly sub-acid flavor.	Jan. to May.
Vig.	<b>Ewalt (Buck's Pippin)</b> —A fine, showy apple; very large, roundish, slightly conical; bright yellow, shaded with crimson on the sunny side; flesh white, tender, brisk, sub-acid.	Nov. to Mar.
Vg	<b>Fameuse (Snow Apple)</b> —Medium size, roundish, very handsome; deep crimson; flesh snowy white, tender, juicy, high flavored and delicious. Tree vigorous, productive, and very hardy.	Nov. to Feb.
Vig.	<b>Fallawater (Tulpehocken, Pound, &amp;c.)</b> —A very large, dull red apple, of good quality, productive.	Nov. to Feb.
Free.	<b>Grimes' Golden (Grimes' Golden Pippin)</b> —An apple of the highest quality, equal to the best Newtown; medium to large size; yellow, productive; grown in Southern Ohio.	Jan'y to April.
Mod.	<b>Green Sweet</b> —Medium size; skin green, somewhat dotted; juicy and very sweet; one of the best Winter sweet apples.	Dec. to April.
Vig.	<b>Hubbardston Nonsuch</b> —Large, striped yellow and red; tender, juicy and fine. Strong, good bearer.	Nov. to May.
Mod.	<b>Jonathan</b> —Fruit medium or small, roundish; skin yellow, nearly covered with dark or lively red; fine grained, very tender and finely flavored.	Nov. to April.
Vig.	<b>Kentish Fill Basket</b> —An English apple of great size and beauty; color greenish yellow, with brown red blush in the sun; flesh tender; juicy, with sub-acid, sprightly flavor.	Oct. to Jan'y
Free.	<b>Krauser</b> —A fine, medium size, yellow apple; originated in Berks County, Pa.; popular in its native locality on account of its handsome appearance and good keeping qualities.	Dec. to April.
Vig.	<b>King (Tompkins County)</b> —Large and handsome; striped red and yellow; productive. One of the best.	Nov. to May.
Mod.	<b>Lady Apple</b> —A beautiful little dessert fruit; flat, pale yellow, with a deep red cheek; juicy, rich and pleasant.	Nov. to May.
Mod.	<b>Ladies' Sweet</b> —A large, handsome, red apple; juicy, sweet and good.	Dec. to May.
Free.	<b>Nonpareil</b> —An old English variety; free, upright grower, and productive; fruit medium, roundish, conical, yellowish green, with patches of dull russet and red in the sun; flesh crisp, juicy, vinous, aromatic; mild acid.	Dec. to March
Vig.	<b>Monmouth Pippin (Red Cheek Pippin)</b> —Large, greenish yellow, with a fine red cheek; juicy, tender and good; productive.	Mar. to April.
Mod.	<b>Newtown Pippin</b> —One of the very best apples as to quality. Very juicy, crisp and highly delicious flavor; requires manure for the best fruit; fine keeper.	Dec. to May.
Vig.	<b>Northern Spy</b> —Large, roundish, slightly conical, somewhat ribbed; striped, with the sunny side nearly covered with purplish red. Flesh white and tender, with a mild sub-acid, rich and delicious flavor. The tree should be kept open by pruning, so as to admit the air and light freely.	Jan'y to June.
Vig.	<b>Nickajack</b> —A large, roundish, striped apple of fair quality; very hardy and productive; popular in the South.	Dec. to April.
Mod.	<b>Peck's Pleasant</b> —Large, pale yellow; very tender and rich, with a Newtown Pippin flavor. Fine bearer.	Nov. to Mar.
Vig.	<b>Pewaukee</b> —A seedling from Duchess of Oldenburg. Fruit medium to large, obovate, waved; surface bright yellow, partially covered with dull red; striped and splashed, covered with a gray bloom, and overspread with whitish dots; flesh yellowish white, breaking juicy; flavor sub-acid, rich, aromatic, spicy, something like the Jonathan; quality good to best.	Jan'y to June.
Mod.	<b>Pomme Grise</b> —A rather small and beautiful gray russet apple, with a slight blush next the sun; flesh tender and high flavored.	Dec. to April.
Mod.	<b>Rawle's Janet (Never Fail)</b> —Medium, roundish, ovate; greenish yellow, striped with red; crisp, rich and juicy; one of the best and longest keepers in the South and South-west.	Feb. to April.
Mod.	<b>Rome Beauty</b> —Large, yellow, shaded with bright red; flesh yellowish, tender, juicy, sub-acid.	Nov. to Feb.
Vig.	<b>Ribston Pippin</b> —Fruit medium to large, splashed and mixed dull red on yellow, with slight russet; flesh yellow, crisp and juicy, with acid, aromatic flavor; adapted to Northern localities.	Oct. to Jan.

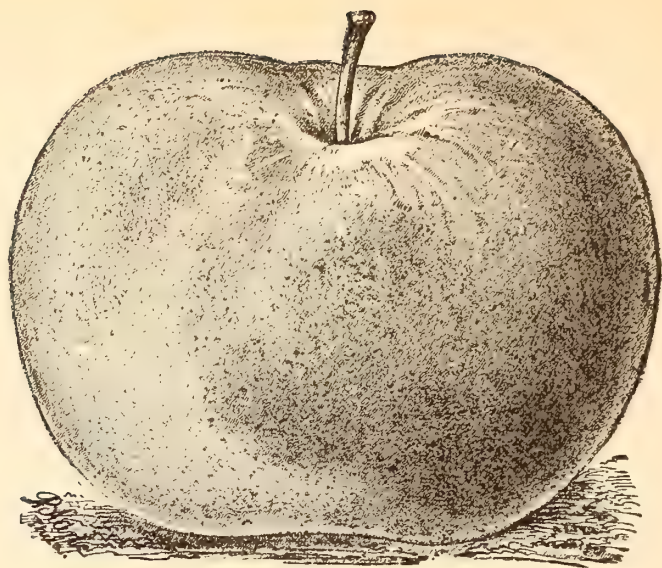
**PRICES**—WINTER: Golden Russett, Baldwin, Ben Davis, Clermont, Fameuse, Grimes Golden, Hubbardston, Jonathan, King, N. Spy, Pewaukee, Pomme Grise, R. I. Greening, Rox Russett, Seek no Further, Smokehouse, Swaar, Talman Sweeting, Wagener, Bellflower, 6 feet 18c., others 25c. **IRON-CLADS**: Alexander, Mann, Stark, Walbridge, Wealthy, 6 feet 18c., others 25c., except Salome which is 60c. each. Smaller sizes 12c.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Mod.	<b>Red Canada</b> (Old Nonsuch of Mass., <b>Steele's Red Winter</b> )—Medium, oblate, red; tender, crisp; rich, sub-acid, refreshing and delicious; productive.	Jan'y to May.
Vig.	<b>Rhode Island Greening</b> —Large, greenish yellow; tender, juicy and rich, with rather an acid flavor; an abundant bearer.	Dec. to April.
Vig.	<b>Russet, Roxbury or Boston</b> —Medium to large; greenish or yellow russet; crisp, good, sub-acid flavor; productive. Very popular on account of its long keeping.	Jan'y to June.
Free.	<b>Salome</b> —Tree a strong grower; equals <b>Wealthy</b> in hardiness; holds its fruit firmly, even against strong wind-storms; an early and annual bearer, although a heavier crop on alternate years; fruit of medium and uniform size; quality very good, which it retains even until Summer; keeps well with ordinary care until July and has been kept in excellent condition until October.	
Mod.	<b>Seek-No-Further</b> (Westfield)—Medium to large; slightly russeted, with dull red stripes, tender, rich, spicy and fine. Good bearer.	Nov. to Feb.
Mod.	<b>Smith's Cider</b> —A handsome fruit, large, oblong, somewhat flattened; skin yellow, changing to red; flesh tender, juicy, crisp, with pleasant sub-acid flavor.	Dec. to Mar.
Mod.	<b>Smokehouse</b> —Large, yellow, shaded with bright red; flesh firm, crisp, juicy and fine flavored.	Oct. to Nov.
Mod.	<b>Spitzenburg, Esopus</b> —Medium to large; deep red; flesh yellow, crisp, sub-acid, high flavored. Bears and grows well transplanted in rich soil.	Nov. to April.
Free.	<b>Sutton Beauty</b> —Fruit medium or above; roundish oblate conic; waxen yellow, shaded, mottled and obscurely striped with fine crimson; flesh whitish, crisp, tender, juicy; sprightly sub-acid.	Nov. to Feb.
Mod.	<b>Swaar</b> —Large, pale lemon yellow, with dark dots; tender, with a mild, rich, agreeable flavor; one of the best.	Nov. to May.
Free.	<b>Tallman Sweeting</b> —Medium, pale yellow, slightly tinged with red; firm, rich and very sweet. The most valuable baking apple; productive.	Nov. to April.
Vig.	<b>Tewkesbury Winter Blush</b> —Small; yellow, with a red cheek; flesh firm, juicy and fine flavored; keeps until late in Spring.	Jan. to July.
Free.	<b>Vandevere</b> —Medium; yellow ground; flesh light yellow, rich, sub-acid flavor; early bearer.	Dec. to Feb.
Vig.	<b>Wagner</b> —Medium to large; deep red in the sun; flesh firm; sub-acid and excellent, very productive; bears very young.	Dec. to May.
Vig.	<b>Western Beauty</b> —Fruit roundish oblate, conical; greenish yellow, nearly covered with pale dull red; striped with darker shade; flesh greenish white, not firm, tender, mild, sub-acid, good.	Nov. to Feb.
Mod.	<b>Willow Twig</b> —Large, roundish, greenish yellow, striped with dull red; flesh firm; rather tough, early bearer, and considered valuable in the South and West where it is popular; profitable as a late keeper.	April to May.
Mod.	<b>Winesap</b> —Medium, dark red; sub-acid, excellent; abundant bearer. A favorite market variety in the West.	Dec. to May.
Free.	<b>Yellow Bellflower</b> —Large yellow, with red blush; very tender, juicy, sub-acid; in use all Winter.	Nov. to April.
Vig.	<b>York Imperial</b> —Medium, oblate: white, shaded with crimson. Flesh firm, crisp, juicy and sub-acid. A good bearer and keeper; one of the best Winter apples.	Dec. to Feb.

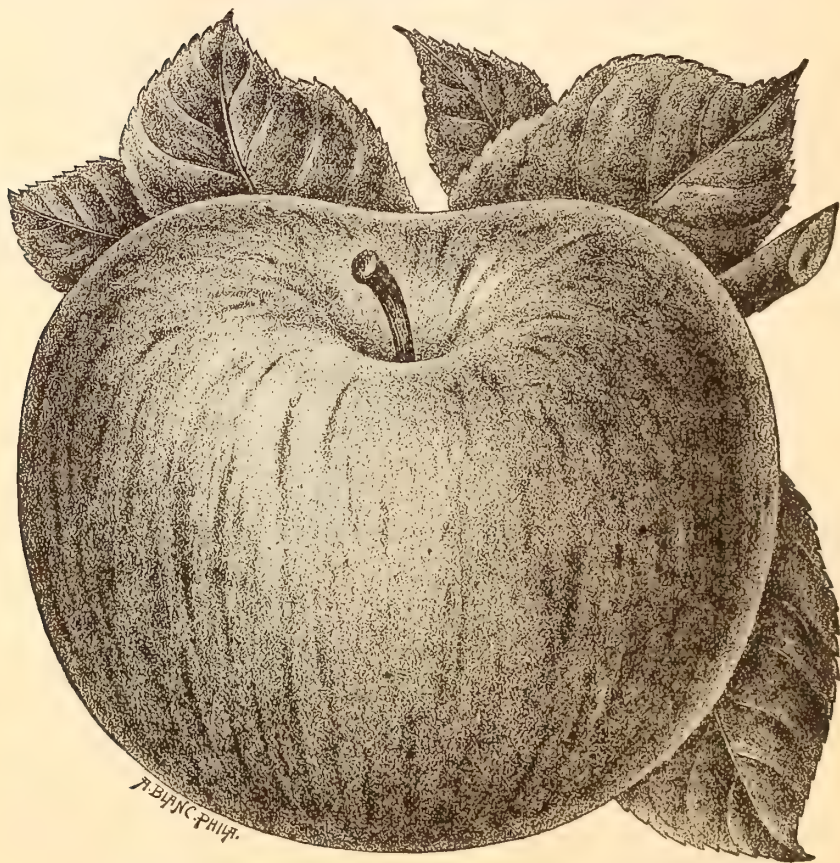
### LIST OF IRON CLAD OR NEVER-FAIL APPLES.

Mod.	<b>Alexander</b> (Emperor Russian)—Large, deep red or crimson; flesh yellowish white, crisp, tender, with pleasant flavor. Very hardy.	Oct.
Free.	<b>Aucubafolia</b> —A new Apple of the Russian class. Tree very hardy: an early and abundant bearer, with distinctly variegated leaves, very ornamental. Fruit good size, roundish; slightly conical; striped, with the side nearly covered with red; flesh fine, brisk, sub-acid.	Nov. & Dec.
Free.	<b>Bethel</b> —Origin, Bethel, Vermont. Esteemed for the hardiness of the tree, and good quality of the fruit; fruit good size, roundish, oblong; yellow, ground striped with beautiful red, and dotted with fine red and white spots; very best quality, and valuable for the North. New.	Dec. to Feb.
Vig.	<b>Bottle Greening</b> —Resembling Rhode Island Greening, but tree a better grower and much harder. A native of Vermont.	Dec. to March.





BLENHEIM PIPPIN.—(LORD NELSON.)



WEALTHY—THE HARDEST AND MOST BEAUTIFUL WINTER APPLE.

HABIT OR GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Utter's Large Red</b> —Large and handsome, very uniform in size; a profuse bearer, quality good. One of the most hardy sorts.	Dec. & Jan.
Vig.	<b>Walbridge</b> —A new early variety, very desirable for extreme cold sections, having stood uninjured in Minnesota, where all but most hardy varieties have failed. Fruit medium size, handsome, striped with red; quality good. Productive.	Mch. to June.
Vig.	<b>Wealthy</b> —A new variety from Minnesota; healthy, hardy and very productive. Fruit medium, oblate, skin smooth, whitish yellow, shaded with deep red in the sun, splashed and spotted in the shade. Flesh white, fine, tender, juicy, lively, sub-acid; very good.	Dec. to Feb.
Free.	<b>Yellow Transparent</b> (Russian Transparent)—A very early Russian apple, of good quality and decided merits; size medium; color when ripe pale yellow; sprightly sub-acid; great bearer.	July.

## CRAB APPLES.

Are quite profitable for market, coming into bearing quite early—frequently in two years from bud-bearing every year, and the fruit meeting with ready sale. Some of the varieties are not only good for culinary purposes, but are especially desirable for table use on account of their beautiful appearance, their delicate texture, and their delicious flavor.

There are several points to which we wish to call attention, and on which we base our recommendation of these hardy fruits:

- 1st. They can be planted on any kind of soil, and in the most exposed situations, with perfect safety.
- 2d. They will stand the severity of the changes of the coldest weather.
- 3d. They will come into bearing very early, often in the second year from planting, and bear every year.
- 4th. They are very productive, giving large crops of beautiful fruit.
- 5th. They are unequalled for cider or vinegar.
- 6th. Some of them are pre-eminently dessert fruits, being of superior quality and strikingly handsome.
- 7th. They can be dried, cooked, canned or preserved with the skin on saving a great amount of trouble.
- 8th. The size of the fruit varies from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches in diameter, being large enough to quarter and core for drying, etc.

The following are the most valuable varieties.

HABIT of GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Gen'l Grant</b> —Tree a vigorous and upright grower; fruit large, round, red to very dark red; flesh white, tender, mild sub-acid; excellent for dessert, and one of the best crabs introduced.	Oct.
Vig.	<b>Hesper Rose</b> —A good bearer; fruit a little smaller than General Grant; equally good.	Nov. to Jan.
Mod.	<b>Hewes Virginia Crab</b> —Rather small, round; dull red and dotted with white; acid somewhat astringent; esteemed for cider.	Oct.
Vig.	<b>Hyslop</b> —Almost as large as Early Strawberry Apple; deep crimson; very popular on account of its large size, beauty and hardness.	Oct. to Jan.
Vig.	<b>Large Red Siberian Crab</b> —About an inch in diameter, grown in clusters; yellow, lively scarlet cheek; bears young and abundantly.	Sept. to Oct.
Free.	<b>Lady Elgin</b> —A new and promising little apple; fruit small, fair and handsome; a very tender, delightful fruit to eat out of hand.	Oct.
Vig.	<b>Marengo</b> —Fruit large; yellow, shaded with bright red; flesh white and juicy when ripe; mild sub-acid.	Jan. to May.
Vig.	<b>Montreal Beauty</b> —Fruit large; bright yellow, mostly covered and shaded with rich red; one of the most beautiful of all Crabs in appearance. Flesh yellowish, rich, firm and acid; very good.	Oct. to Nov.
Free.	<b>Orion</b> —A new and very desirable Crab. Bright red; one of the best.	Oct.
Mod.	<b>Orange</b> —An annual and abundant bearer. Fruit larger than Transcendent. Flesh firm, crisp, juicy and delicious.	Oct. to Dec.
Vig.	<b>Quaker Beauty</b> —A hardy sort; bears large crops of fine fruit.	Dec. to May.

**PRICES**—CRAB APPLES: Hyslop, Siberian, Transcendent, Whitney, 6 feet 18c., others 25c. In all cases where the price is 25c. for apple trees, the varieties are new or rare.



HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Queen's Choice</b> —Fruit as large as Transcendant, but a little more elongated; bright yellow with a beautiful blush cheek; grows in large clusters; flesh fine grained, juicy and good. An early and abundant bearer.	Oct.
Free.	<b>Soulard</b> —The largest of this class of apples; very valuable as a cooking apple; sour and astringent as an eating apple, but has, when cooked, a fine quince-like flavor; color green, becoming yellow in the spring; keeps well until July; very productive.	Jan. to June.
Vig.	<b>Transcendant</b> —All things considered, this is, perhaps, the most valuable of Crab Apples grown. Tree immensely productive, bearing after second year, and producing good crops by the fourth year. Fruit from one and a half to two inches in diameter, being large enough to quarter and core for preserving and drying. Excellent for sauce and pies, both green and dried. The best of its class for cider, being juicy and crisp, and is also by many considered a good eating apple. Skin yellow, striped with red.	Sept. & Oct.
Vig.	<b>Van Wyck Sweet</b> —An exceedingly valuable variety. Fruit very large; skin yellowish white, colored light red, and covered with bloom; flesh yellowish white; very sweet and tender; small core.	Oct. & Nov.
Free.	<b>Waxen</b> —A new Crab of promising character.	Sept. & Oct.
Vig.	<b>Whitney's Seedlings Siberian</b> —Large, averaging one and a half to two inches in diameter; skin smooth, glossy green, striped, splashed with carmine; flesh firm, juicy and flavor very pleasant; ripens latter part of August. Tree a great bearer and very hardy; a vigorous, handsome grower, with a dark green, glossy foliage.	Aug.
Free.	<b>Yellow Siberian Crab</b> —Nearly as large as the above; fine amber or golded yellow color.	Sept. & Oct.

## PEARS.

The cultivation of this noble fruit is extending as its value is appreciated. The range of varieties is such that, like apples, they can be had in good eating condition from August until early Spring.

The melting, juicy texture, the refined flavor, and the delicate aroma of the Pear, give it rank above all other fruits except the grape.

But the Pear, like most things highly desirable and valuable, cannot be had without attention, labor and skill. The relative price of the Apple and Pear being about as one of ten, show at the same time the superior value of the latter, and the greater skill required to bring it to perfection.

One of the most important points in the management of Pears, is to gather them at the proper time.

Summer Pears should be gathered at least ten days before they are ripe, and Autumn Pears at least a fortnight. Winter varieties, if they will hang so long, may be left until the leaves begin to fall.

At the present time the demand is for choice fruit—inferior fruit brings scarcely a remunerative price but the best will always pay well. Pears should have the best kind of cultivation; the fruit should be thinned so as not to over-produce. Care should be used in selecting for market only the best specimens and with such effort and system on the part of the grower, there will also come a satisfactory profit.

The Pear succeeds on most soils, but does best on a rather heavy loam. Budded on its own stock, it makes a standard tree, and on the French or Angers Quince, a dwarf, the former being best adapted to large permanent orchards; the latter (requiring garden culture and severe pruning every year) to smaller orchards, fruit yards and gardens.

Dwarfs MUST ALWAYS be planted SUFFICIENTLY DEEP to cover the junction of the Pear and Quince two or three inches—the soil made rich and well tilled, and about one-half of the previous Summer's growth cut off each Spring. Under this treatment, Dwarfs are everywhere successful. The side branches should not be removed higher than one foot from the ground in Dwarfs, while Standards may be trimmed to the height desired. Train in pyramidal form. Ripen the fruit in the house. Gather when, on gently lifting the fruit, the stem will readily separate from the limb. Place in a dark room until fully matured. Winter Pears may hang on the trees until there is danger from frost, then place in a dry cellar for maturing.

The letters "D" and "S" appended to the description of varieties, indicate favorable growth either as "Dwarfs" or "Standard" or both. Those designated as "moderate growers" are usually smaller trees.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON
<b>SUMMER.</b>		
Vig.	<b>Bartlett</b> —Large size, with often a beautiful blush next the sun; buttery, very juicy and high flavored; bears early and abundantly; very popular. D. and S.	Aug. & Sept.
Free.	<b>Bloodgood</b> —Medium; yellow, touched with russet; rich and delicious; first quality. D. and S.	Aug.
Free.	<b>Beurre Assomption</b> —This is an early French variety; fruit large and tree productive. D. and S.	July & Aug.
Mod.	<b>Beurre Giffard</b> —An excellent variety; medium; greenish yellow, red in the sun; very early; very productive. D. and S.	Aug.
Vig.	<b>Brandywine</b> —Above medium, yellowish green; melting, sweet; productive. D. and S.	Aug.
Free.	<b>Brockworth Park, or Bonny d'Eze</b> —A new, large and beautiful pear; juicy, melting and excellent. D. and S.	Sept.
Mod.	<b>Chambers'</b> (Early Harvest or Kentucky)—Originated in Maryland and valued as a profitable early variety. Recommended by the Kentucky Horticultural Society as the best and most profitable market pear of its season. Fruit medium to large; rich, golden yellow, with red cheek next the sun, thickly covered with gray dots. D. and S.	Aug.
Vig.	<b>Clapp's Favorite</b> —Very large; yellowish green to full yellow when ripe, marbled with dull red in the sun, and covered with small russet specks, vinous, melting and rich. D. and S.	Aug.
Free.	<b>Dearborn's Seedling</b> —Nearly medium size; light yellow, sprinkled with small dots; juicy, melting and fine; an abundant bearer. D. and S.	Aug.
Vig.	<b>Doyenne d'Ete</b> —Scarcely medium size; yellowish, with a fine blush; juicy, sugary and rich; very early; fine on quince. D. and S.	Aug.
Vig.	<b>Kingsessing</b> —Large, greenish yellow; flesh juicy, buttery, with a rich perfumed flavor. D. and S.	Sept.
Vig.	<b>Le Conte</b> —A cross between the Chinese Sand Pear and some other variety unknown. Of remarkable vigor and beauty of growth. The fruit is bell-shaped; of a rich creamy yellow when ripe; very smooth and fine looking and ships well. Greatly esteemed in some parts of the South.	Aug.
Vig.	<b>Madeleine</b> —Medium; yellowish green; very juicy, melting, sweet; a fair grower and productive. D. and S.	Aug.
Vig.	<b>Manning's Elizabeth</b> —Small to medium; bears in clusters; crimson and gold color; very beautiful, melting, rich, sugary, sprightly, perfumed flavor; excellent; very productive. One of the best early pears.	Aug.
Free.	<b>Osband's Summer</b> —Medium, yellow, with red cheek; half melting, mild and pleasant; fine flavor and excellent; productive. D. and S.	Aug.
Vig.	<b>Petite Marguerite</b> —Medium size, skin greenish yellow, with brownish red cheek, and covered with greenish dots. Flesh fine, melting, juicy, vinous, and of first quality. Tree upright grower, and an early and abundant bearer. Succeeds admirably as a standard or dwarf. One of the finest of the newer pears, and worthy of special attention.	Aug. & Sept.
Vig.	<b>Rostiezer</b> —Medium, yellowish green, with a brown cheek; flesh juicy, sweet and excellent. D. and S.	Sept.
Mod.	<b>Souvenir du Congress</b> —Fruit large to very large, resembling in form the Bartlett; skin smooth, of a handsome yellow at maturity, washed with bright red or carmine on the side exposed to the sun. Flesh much like the Bartlett, having the musky flavor, though in a less degree. D. and S.	Sept.
Vig.	<b>Tyson</b> —Medium size, bright yellow; cheek shaded with reddish brown, buttery, very melting; flavor nearly sweet, aromatic, excellent. D. and S.	Sept.
<b>AUTUMN.</b>		
Vig.	<b>Buffum</b> —Medium size, yellow, somewhat covered with reddish brown and russet; buttery, sweet and excellent. D. and S.	Sept. & Oct.
Mod.	<b>Beurre Clairgeau</b> —Large; skin yellow, inclined to fawn, shaded with orange and crimson, covered with russet dots; flesh yellow, buttery, juicy, somewhat granular, with a sugary, perfumed, vinous flavor. The size, early bearing, productiveness and exceeding beauty, renders this a valuable sort. D. and S.	Oct. & Nov.
Vig.	<b>Beurre Hardy</b> —A pair of good size; cinnamon russet; melting and fine. Tree a good bearer. One of the finest pears. D. and S.	Oct.

**PRICES**—SUMMER STANDARD: Bartlett, Brandywine, Clapp's Favorite, Doyenne d'Ete, Madeleine, Manning's Elizabeth, Tyson, 6 feet 35c. each, others 50c. **AUTUMN**: Buffum, Clairgeau, Anjou, Lucrative, Dr. Reeder, Flemish Beauty, Howell, Keiffer, L. Bonne, Onondaga, Sheldon, Seckel, 6 feet 35c., others 50c. **WINTER**: Dana's Hovey, Lawrence, Mt. Vernon, Vicar, Josephine, 6 feet 35c. Medium sized pear trees, 25c. each. **DWARF PEARS**: large 25c., medium 18c., one year 15c.



HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Mod.	<b>Beurre Bosc</b> —A large, fine pear, russetty yellow, slight brownish red in the sun; flesh white, melting, juicy, sweet, perfumed; productive. S.	Sept. & Oct.
Free.	<b>Beurre Diel</b> —Large, dull yellow, dotted; sugary, rich and delicious. D. and S.	Oct. to Dec.
Vig.	<b>Beurre d'Anjou</b> —Large, greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, buttery, melting, with a high, rich, vinous, excellent flavor; very productive; succeeds well on the quince; should be in every orchard. D. and S.	Oct. to Jan.
Free.	<b>Beurre Superfin</b> —Medium, pale green; melting, juicy and good; very productive. D. and S.	Oct.
Free.	<b>Belle Lucrative</b> (Fondante d'Automne)—A fine, large pear, yellowish green, slightly russetted; melting and delicious; productive. One of the best Autumn pears.	Sept. & Oct.
Mod.	<b>Belle de Beaufort</b> —Large, of symmetrical form; beautiful color and fine quality. Tree a good bearer.	Oct. to Dec.
Vig.	<b>Duchess d'Angouleme</b> —Very large, dull greenish yellow, streaked and spotted with russet; flesh white, buttery and very juicy, with a rich and very excellent flavor; on young standard trees the fruit is variable, but on the quince, to which stock this variety seems well adapted, it is always fine; the large size and fine appearance of this fruit makes it a general favorite. D. and S.	Oct. & Nov.
Vig.	<b>Doyenne Boussock</b> —Large, lemon yellow, a little russetted; melting, juicy, with a sprightly, vinous flavor. S.	Oct.
Vig.	<b>Doyenne White</b> (Virgalieu)—Medium, pale yellow, with a faint blush; fine flavor. D. and S.	Oct. & Nov.
Mod.	<b>Doyenne du Comice</b> —Large, yellow, with crimson and fawn cheek, and russet dots; melting, rich, perfumed and luscious; productive.	Oct. & Nov.
Mod.	<b>Dr. Reeder</b> —Fruit medium, skin yellow, covered with russet; flesh melting, juicy, sweet, with musky perfume; tree hardy and very productive; very good. S.	Nov.
Free.	<b>Edmunds</b> —Large, bright yellow, often marbled with red in the sun; melting, sweet perfumed; good bearer. D. and S.	Sept. & Oct.
Vig.	<b>Flemish Beauty</b> —Large, beautiful, juicy, melting, rich and fine; good bearer; hardy everywhere. D. and S.	Sept. & Oct.
Free.	<b>Frederick Clapp</b> —Above medium, lemon yellow, sprightly, acidulous, rich, superior to Beurre Superfin; best.	Oct. & Nov.
Free.	<b>Goodale</b> —This hardy pear originated at Saco, Maine. Fruit large, flesh white, juicy, melting, of excellent flavor and quality. Tree hardy and upright in growth, and uniformly productive; a valuable acquisition.	Oct.
Vig.	<b>Howell</b> —Large, light, waxen yellow, with a fine red cheek; handsome, rich, sweet, melting, perfumed, aromatic flavor. An early and profuse bearer. Very hardy and valuable. D. and S.	Sept. & Oct.
Vig.	<b>Kieffer's Hybrid</b> —This new and unique pear was raised from seed of the Chinese Sand Pear, accidentally crossed with the Bartlett or some other kind grown near it. Tree has large, dark green, glossy leaves and is of itself very ornamental; is an early and very prolific bearer. The fruit is of good quality, wonderfully showy and valuable for the table and market. It never rots at the core and is as nearly blight-proof as is possible for any pear to be. D. and S.	Oct. & Nov.
Vig.	<b>Louise Bonne de Jersey</b> —Rather large, greenish yellow, with a bright red cheek; juicy, buttery and melting, excellent; very productive. D. and S.	Sept. & Oct.
Vig.	<b>Onondaga</b> (Swan's Orange)—A very large, melting and highly flavored yellow pear; productive. D. and S.	Oct. & Nov.
Free.	<b>President</b> —Raised by Dr. Shurtliff, of Massachusetts, where it is very popular. Fruit large, roundish, oblate; somewhat irregular; flesh yellowish white, rather coarse, juicy, slightly vinous. Good.	Nov.
Mod.	<b>Rutter</b> —Fruit medium to large, and nearly globular; skin rough, greenish yellow, sprinkled with russet; flesh white, moderately juicy, nearly melting, sweet, slightly vinous; good bearer. Very good.	Oct. & Nov.
Vig.	<b>Sheldon</b> —Medium size; yellow on greenish russet, with a richly shaded cheek; flesh a little coarse, melting, juicy, with a very brisk, vinous, highly perfumed flavor; productive. S.	Oct.
Vig.	<b>Seckel</b> —Small; skin rich yellowish brown when fully ripe, with a deep brownish red cheek; flesh very fine grained, sweet, exceedingly juicy, melting, buttery; the richest and highest flavored pear known.	Sept. & Oct.
Mod.	<b>Urbaniste</b> —Large; pale yellow, finely russetted, melting and delicious. Best on pear.	Oct. & Nov.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
<b>WINTER.</b>		
Mod.	<b>Beurre Easter</b> —Large; yellow, sprinkled with brown dots, often dull red cheek; quality good. One of the best Winter pears. Best on quince. D.	Dec. to Feb.
Mod.	<b>Dana's Hovey</b> —Small size; color yellowish russet; flesh yellowish white, juicy, melting, with a sugary, rich, aromatic flavor, too small for a market variety, but as an amateur sort, most desirable. S.	Nov. & Dec.
Free.	<b>Duchess de Bordeaux</b> —Large size, with a very thick, tough skin, which renders it a most valuable keeper for winter use; flesh melting, juicy, rich. S.	Dec. to March.
Free.	<b>Glout Morceau</b> —Large, sweet, melting, juicy and buttery; one of the best early Winter pears; productive. D.	Dec.
Free.	<b>Josephine de Malines</b> —Medium, yellow, slightly russet; flesh buttery, juicy and sweet; a fine keeper; productive. D.	Dec. to March.
Free.	<b>Lawrence</b> —Rather large, yellow, covered with brown dots; flesh whitish, slightly granular, somewhat buttery, with a very rich, aromatic flavor, unsurpassed among the early Winter pears; succeeds well on the quince; ripens with little care; should be in every orchard; tree healthy, hardy and productive. S.	Nov. & Dec.
Free.	<b>Mt. Vernon</b> —Medium size; light russet, reddish in the sun; flesh yellowish, juicy and aromatic; early bearer. A very good late pear. D. and S.	Dec.
Free.	<b>President Drouard</b> —A very good looking and large Winter pear, with a delicate and abundant perfume; melting and juicy. D. and S.	Mar. to May.
Vig.	<b>Vicar of Winkfield (Le Cure)</b> —Large, long; not first quality, but desirable for its productiveness. Best on quince. D. and S.	Nov. to Jan.
Mod.	<b>Winter Nelis</b> —Medium size; yellowish green and russet; fine grained, melting, rich and delicious; one of the best Winter pears; very productive. S.	Dec.

## PEACHES.

The Peach Tree requires a well drained, moderately rich soil—warm, sandy loam is probably the best

In order to preserve the continued healthy growth of the trees and the fine quality of the fruit, the Peach should have the shoots and branches shortened in every year or two, so as to preserve a round, vigorous head; and the land should not be seeded to grass, but kept in constant cultivation.

The following have been selected after an examination of more than one hundred different sorts in bearing, the best only being chosen. They furnish a succession for about two months, commencing the early part of August.

NAME.	DESCRIPTION.	SEASON.
<b>Alexander Early.</b>	From Illinois, from ten days to two weeks earlier than Hale's Early; of good size, well grown specimens measuring eight inches in circumference, handsome and regular in form with deep maroon shade, covered with the richest tint of crimson, rich and good in quality with a vinous flavor; free-stone.	Middle to end of July.
<b>Amsden.</b>	Very early; three weeks before the Hale's Early, and ten days before the Early Beatrice. The fruit has remarkably keeping and carrying qualities. Fruit rather larger than Hale's Early; roundish, a little flattened, with a slight suture. Color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish white ground. Flesh white, with a delicious flavor.	Middle to end of July.
<b>Barnard's Early.</b>	Medium to large; yellow, cheek purplish red, flesh yellow, red at the stone, juicy, sweet and rich. One of the very best yellow fleshed peaches.	First to middle of September.
<b>Clarissa.</b>	New, very large, yellow flesh, fine flavor and appearance	First October.
<b>Conkling.</b>	New, beautiful golden yellow, marked with crimson; very handsome, flesh pale yellow; very juicy, sweet, vinous and very good. Equal to any yellow flesh peach.	First September.

**PRICES**—PEACHES: Alexander, Amsden, Conkling, Crawford's Early, Crawford's Late, Early Rivers, Early York, Foster, George 4th., Mountain Rose, Old Mixon, Salway, Stump, Wager, Wheatland; largest size 15c., smaller size 10c., other varieties 25c.



NAME.	DESCRIPTION.	SEASON.
✓ Cooledge's Favorite	Large White, with crimson cheek; flesh pale, very melting and juicy, with a rich, sweet and high flavor; beautiful and excellent. Productive.	Middle to end of August.
✓ Crawford's Early.	This very beautiful and best of yellow peaches is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent. Wonderfully productive and hardy.	Last of August.
✓ Crawford's Late.	Fruit of the largest size; skin yellow or greenish yellow, with dull red cheek; flesh yellow; productive. One of the finest late sorts.	Last of Sept.
✓ Downing.	A seedling produced by H. M. Engle, of Lancaster County, Pennsylvania, from an attempt to hybridize Hale's Early Peach with an Apricot. Fruit medium; greenish white, nearly covered and mottled with red; flesh white, juicy, melting and sweet.	Middle to end of July.
✓ Early Beatrice.	A new variety, of fair size, handsome appearance, and very good quality. Color white, beautifully marbled with bright red; has ripened fully two weeks before the Hale's Early, and is remarkably free from rot. Many hundred bushels of this variety have been sold at very high prices in New York and Philadelphia markets, fully establishing its character as a most valuable market fruit.	Beginning of August.
✓ Early Canada.	This wonderful early Peach is a native of Jordan, Province of Ontario, Canada, a chance seedling brought out by the late A. H. High. Ripens one month before Crawford's Early. Good samples measure over seven inches in circumference; unusually hardy for a Peach.	Middle to end of July.
✓ Early Louise.	Larger than Early Beatrice; a few days later, but of higher quality; good medium size; flesh melting, juicy and excellent; but little if any less valuable than the former.	Middle of Aug.
✓ Early Rivers.	Another new variety; large, light straw color, with delicate pink cheek; flesh juicy and melting, with very rich flavor. Ripens close after the Louise, and one or two weeks earlier than Hale's.	End of August.
✓ Early York.	Medium size, greenish white, covered in the sun with dull red; flesh greenish white, very tender.	Middle of Aug.
✓ Early Silver.	Large, melting and rich, with the vinous flavor of the White Nectarine, its parent. One of the best.	Early in Sept.
✓ Foster.	Originated in Medford, Mass. Large; deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor. Earlier than Early Crawford. Very handsome.	Last of August.
✓ Garfield, or Brigdon	A new Peach originated in Cayuga Co., N. Y. Flesh yellow, very rich and juicy; color deep orange red, becoming dark red on the exposed side; very attractive; foliage large, green, glossy and peculiar.	Middle of Sept.
✓ George IV.	Large white, with red cheek; melting, juicy and delicious. Moderate bearer.	Last of August.
✓ Honest John.	Medium to large; yellow; flesh yellow and of good quality. Tree vigorous and productive.	First of Sept.
✓ Hale's Early.	Fruit medium size, skin clear, smooth, white, delicately marbled with bright and dark red on the sunny side; flesh very melting, juicy, and high flavored.	Last of July.
✓ Hill's Chili.	Medium size, dull yellow, tree very hardy, a good bearer; highly esteemed as a market fruit in Western Michigan.	Last of Sept.
✓ Jacques' Rareripe.	Very large, deep yellow; has a high reputation.	Last of August.
✓ Large Early York.	Large, white, with a red cheek fine grained, very juicy, rich and delicious; vigorous and productive; one of the best.	Last of August.
✓ Lord Palmerston.	Very large; skin creamy white, with a pink cheek; flesh firm, yet melting; very juicy and rich.	Middle to end of September.
✓ Morris White.	Medium, straw color, tinged with red; juicy and delicious; productive.	Middle of Sept.

## PLUMS.

The Plum tree, like the Pear and other finer fruits, attains its greatest perfection on our heavy soil, being entirely free from disease. The curculio, a small, dark brown beetle, often stings the fruit, causing it to drop off; but the following directions, faithfully observed, will secure a good crop of this splendid fruit everywhere.

As soon as the blossoms are fallen, spread two sheets under the tree, and give the tree a sudden jar, by striking a smart blow with a hammer upon the stub of a limb, sawed from the tree for the purpose; the insects will drop on the sheet and can be killed. Collect all the fallen fruit and burn or feed to swine. Repeat the operation every day for two or three weeks. It should be done before sunrise.

The cost of protecting large orchards from the attacks of this enemy will not exceed ten cents per tree for the entire season.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Vig.	<b>Basset's American</b> —New. Is a regular bearer; tree very healthy and hardy; fruit small, deep crimson, with a heavy white bloom; sweet, rich and refreshing; skin thick, which protects it from the attacks of the curculio.	Sept.
Vig.	<b>Beauty of Naples</b> —A new variety of the highest promise; size large; color greenish yellow. Flesh firm, juicy and very fine flavored; tree very hardy and prolific.	Middle of Sept.
Mod.	<b>Bleecker's Gage</b> —Above medium, yellow; juicy and rich; productive.	Last of Aug.
Vig.	<b>Bradshaw</b> —Fruit very large, dark violet red; flesh yellowish green; juicy and pleasant; productive.	Middle of Aug.
Mod.	<b>Coe's Golden Drop</b> —Large and handsome; light yellow; firm, rich, sweet; one of the best late plums.	Last of Sept.
Free.	<b>Columbia</b> —Very large; nearly round; flesh rich and fine flavored.	Sept.
Mod.	<b>Damson</b> —Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone.	Last of Sept.
Vig.	<b>De Caradeuc</b> —Medium, round; skin yellow, nearly covered with red; flesh melting, sweet and vinous; prolific. Thought to be a hybrid between the Chickasaw and a European variety. Represented to be one of the best.	July.
Free.	<b>Denniston's Superb</b> —Medium size, round, dotted with purple; handsome, quality good; good bearer.	Last of Aug.
Free.	<b>Duane's Purple</b> —Large size, roundish and oblong, color a reddish purple; flesh juicy and good; very handsome; bears well.	Beg. of Sept.
Free.	<b>Fellenberg</b> —(Italian Prune)—A fine late plum; oval, purple, flesh juicy and delicious; parts from the stone; fine for drying. Tree very productive.	Sept.
Vig.	<b>Glass' Seedling</b> —Raised in Guelph, Ont. Tree hardy, very productive; fruit very showy, valuable for market and culinary purposes; large, dark, purple, almost black, with a thin, blue bloom. Flesh a little coarse, moderately sweet and juicy.	Sept.
Slow.	<b>Green Gage</b> —Small; considered the standard of excellence for quality.	Middle of Aug.
Vig.	<b>General Hand</b> —Very large, oval; golden yellow, juicy, sweet and good.	First of Sept.
Vig.	<b>Geuii</b> —Fruit very large, deep bluish purple, covered with thick bloom; flesh yellowish green coarse, sweet and pleasant; great bearer and very early; tree a hardy and rapid grower. This new variety is regarded as very valuable for market by growers along the Hudson river.	First to Middle of Sept.
Vig.	<b>German Prune</b> —A large, long, oval variety, much esteemed for drying; color dark purple, of very agreeable flavor	Sept.
Free.	<b>Huling's Superb</b> —Very large and handsome; yellowish green; juicy, rich and good.	Middle of Aug.
Free.	<b>Hudson Gage</b> —Medium size; yellow, with streaks of green; very juicy, melting, rich and fine; productive	First of Aug.
Vig.	<b>Imperial Gage</b> (Flushing Gage, Prince's Imperial Gage)—Fruit large, oval, skin pale green, flesh juicy, sweet, rich and excellent. Tree very vigorous and productive.	Middle of Aug.
Free.	<b>Imperial Ottoman</b> —Medium size, dull yellow; early; juicy, sweet and excellent; great bearer	First of Aug.
Mod.	<b>Jefferson</b> —Large, yellow, reddened in the sun; juicy, rich and delicious. One of the best.	Last of Aug.

**PRICES**—PLUMS: Bradshaw, Coe's Golden, Damson, German Prune, Imperial Gage, Lombard, McLaughlin, Pond's, Purple Egg, Quackenboss, Reine Claude, Smith's Orleans, Weaver, Washington, Yellow Egg; 6 feet 35c. Medium sized trees of above 20c., other kinds 50c. each.



HABIT OR GROWTH	NAME AND DESCRIPTION.	SEASON.
Vig.	<b>Kington</b> —A fine, handsome plum, originated in Rochester, N. Y. Fruit very large and showy, usually borne in clusters; of good quality, firm flesh and rich flavor. Very fine for preserving.	Last of Aug.
Vig.	<b>Large Golden Prolific</b> —New; a seedling, originated in Ontario, Canada; resembling in color and form Yellow Egg, of which it is supposed to be a seedling, but of much better quality and more productive. The original tree bears free crops every year. We consider this a valuable acquisition to the list of plums. Sufficiently hardy for cultivation in Canada.	Last of Aug.
Vig.	<b>Lumbard</b> (Bleecker's Scarlet)—Medium, round, oval; violet red; juicy, pleasant and good; adheres to the stone; productive. A valuable market variety; one of the most hardy and popular.	Last of Aug.
Mod.	<b>Lawrence's Favorite</b> —Large, yellowish green, remarkably juicy and melting. One of the best; productive.	Middle of Aug.
Vig.	<b>McLaughlin</b> —Large, yellow, firm, juicy, luscious; productive. Nearly or quite equal to the Green Gage.	Last of Aug.
Vig.	<b>Miner</b> (Townsend)—An improved variety of the Chickasaw; originated in Lancaster, Pa. Medium size, oblong, pointed at apex; skin dark, purplish red, slightly mottled, with fine bloom; flesh soft, juicy, vinous, adheres to the stone. Excellent for canning and cooking, and esteemed for market in the West; productive.	Early in Aug.
Vig.	<b>Monroe</b> —Medium, excellent; vigorous grower and abundant bearer.	Sept.
Vig.	<b>Moorer's Arctic</b> —New; originated in Maine, and celebrated for its remarkably hardiness, freedom from curculio and great bearing qualities. Fruit grows in large clusters; large, dark purple; flavor very fine both for preserving and dessert. A long keeper.	Last of Aug. to Dec.
Free.	<b>Moyer</b> —New. Seedling originated in Jordon, Ont., where it has been grown and planted largely by the owner, who has never failed of getting from a fair to a heavy crop each year. Seems to escape the attack of the curculio and black wart although some of the trees are quite old. Fruit medium size, blue, and one of the very best for cooking purposes.	Sept.
Vig.	<b>Niagara</b> —New. Origin uncertain; very large, reddish purple, entirely covered with gray bloom; flesh deep greenish yellow. Resembles Bradshaw, although a stronger grower, more hardy and far better bearer.	Middle of Aug.
Free	<b>Peach</b> —Very large and handsome, dull red; good, very productive.	Last of Aug.
Vig.	<b>Pond Seedling</b> —A magnificent English Plum; light red, changing to violet; flesh rather coarse; abundant bearer. One of the most attractive in cultivation	Sept.
Vig.	<b>Purple Egg</b> (Hudson River Purple Egg)—Highly esteemed by growers along the Hudson River; described as one of the richest and finest flavored plums we have; stone free; good size, resembles the German Prune—a little larger, with a nice bloom; good bearer and brings good price in market; tree bears young.	Sept. & Oct.
Free.	<b>Prince's Yellow Gage</b> —Above medium size; deep yellow; flesh yellow, rich, melting and sweet; productive	Aug.
Vig.	<b>Quackenboss</b> —Large, oblong, oval deep purple, a little coarse, sprightly, juicy, sweet and excellent. Adheres slightly to the stone; productive. Valuable for market.	Oct.
Vig.	<b>Red Egg</b> (Red Magnum Bonum)—Large red; firm flesh; sub-acid	First of Sept.
Free	<b>Reine Claude de Bavay</b> —Large, nearly round; pale yellow; marked with red; juicy, melting and excellent; good bearer.	Last of Sept.
Vig.	<b>Schuyler Gage</b> —Medium size; yellow, dotted and marked with red in the sun; juicy rich and sweet; productive.	Last of Sept.
Free	<b>Smith's Orleans</b> —Large size, reddish purple; flesh firm and juicy, with a rich, fine flavor; productive.	Sept.
Free	<b>Shropshire Damson</b> —A Plum of fine quality, as free from the attack of the curculio as the Common Damson, and of same color. The flesh is amber colored, juicy and sprightly. In market it has commanded nearly double the price of the Common Damson, and is enormously productive.	Last of Sept.
Free.	<b>Victoria</b> (Sharp's Emperor)—One of the most magnificent Plums in cultivation; of the largest size, fair quality; purplish red color; most abundant bearer.	Sept.
V.g.	<b>Weaver</b> —Fruit large, purple, with a blue bloom; very prolific; a constant and regular bearer and of good quality. The tree is very hardy, not being injured in the severest winters, and will thrive even to the northern limits of the United States.	Aug.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Washington</b> —Very large ; when ripe, clear yellow, marked with red ; flesh firm, very juicy and excellent ; very popular ; productive.	Last of Aug.
Vig.	<b>Wild Goose</b> —Fruit medium, purple with a blue bloom ; flesh juicy and sweet.	July.
Vig.	<b>Yellow Egg, or Yellow Magnum Bonum</b> —Very large, egg-shaped ; excellent for cooking ; good and productive	Last of Aug.
Vig.	<b>Yosemite</b> —New. Highly recommended ; said to yield a crop annually.	Sept.

## CHERRIES.

The Cherry tree universally requires a dry soil, and is naturally a hardy tree, succeeding in the lightest soil or driest situations. Many varieties of rapid growth with large, glossy leaves, forming fine, pyramid-shaped heads, and producing large crops of luscious fruit ; are well adapted for planting along the streets, or in yards as shade trees.

By a proper selection of varieties, they may be profitably grown for market. Many trees produce from five to six bushels per tree. The fruit brings in market, one year with another, \$2 to \$3 per bushel.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
<b>HEART AND BIGARREAU CHERRIES.</b>		
Free.	<b>Black Eagle</b> —Large black, very tender, juicy, rich and high flavored ; productive.	First to middle of July.
Vig.	<b>Black Tartarian</b> —Very large, bright purplish black ; half tender, juicy, very rich, excellent flavor ; productive.	Last of June.
Vig.	<b>Coe's Transparent</b> —Medium size, pale amber, red in the sun ; tender, juicy, rich, handsome ; one of the best ; productive.	Last of June.
Vig.	<b>Cleveland (Dr. Kirtland)</b> —Large size, yellowish, covered with bright red ; quality excellent ; productive.	Last of June.
Vig.	<b>Downer's Late Red</b> —Large, light red ; tender, juicy and delicious ; productive.	Middle of June.
Free.	<b>Early Purple Guigne (Early Purple)</b> —The earliest fine variety ; medium size, heart-shaped ; tender, juicy and sweet ; very hardy and productive.	First to middle of June.
Vig.	<b>Elton</b> —Large and fine flavor, pale yellow, light red next the sun.	Last of June.
Vig.	<b>Elkhorn (Tradescant's Black Heart)</b> —A fine, large, black cherry, of good quality ; productive.	Middle of July.
Vig.	<b>Gov. Wood</b> —Raised by Dr. Kirtland, and one of the best cherries ; very large, light red ; juicy, rich and delicious. Tree healthy and a great bearer.	Last of June.
Free.	<b>Great Bigarreau</b> —Large size, very dark red, half tender, sweet and excellent ; very productive.	First of July.
Free.	<b>Knight's Early Black</b> —Large, black, tender, juicy, rich and excellent ; productive.	Middle to last of June.
Free.	<b>Luelling</b> —A variety from Portland, Oregon ; of very dark color and finest quality ; flesh solid and firm, and adapted to long transportation.	Last of June.
Vig.	<b>Mammoth (Dr. Kirtland)</b> —Very large, clear yellow, with some red in the sun ; sweet and delicious.	Last of June.
Free.	<b>Manning's Mottled</b> —Medium, pale amber, very beautifully mottled ; tender and juicy ; an estimable variety, producing abundant crops.	End of June.
Vig.	<b>Napoleon Bigarreau</b> —Very large, pale yellow or red ; very firm, juicy and sweet ; very productive ; one of the best.	First of July.
Vig.	<b>Rockport Bigarreau</b> —Large, pale amber with clear red ; a very excellent and handsome cherry ; good bearer.	Last of June.
Vig.	<b>Sparhawk's Honey</b> —Medium, red ; a very sweet and melting variety ; ripens late and will hang for some time on the tree ; productive.	Last of June.
Free.	<b>Yellow Spanish</b> —Large, pale yellow, with red cheek ; firm, juicy and excellent ; one of the best light colored cherries ; productive.	Last of June.

**PRICES**—CHERRIES : Tartarian, Gov. Wood, Napoleon, Rockport, Yellow Spanish, Empress, English Marrello, Early Richmond, Late Duke, Montmorency, Louis Philippe, May Duke, Olivier ; 35c. Medium sized trees 20c each. For general price list see page 32. Other kinds of Cherry trees 50c.



## DUKE AND MORELLO CHERRIES.

These are for the most part, round shaped ; fruit generally acid, though some varieties have a very mild, pleasant flavor. The trees are naturally of a smaller growth than the preceding class, and well adapted for Dwarfs or Pyramids. The Morellos are more slender and spreading in habits than the Dukes, which are of stocky, upright growth. Both are more hardy than the Hearts and Bigarreaus, and in large demand where the latter cannot be grown with advantage.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Vig.	<b>Belle de Choisy</b> —Medium, amber, mottled with red ; tender, juicy, sweet and rich.	Last of June.
Free.	<b>Belle Magnifique</b> —Fruit large, roundish ; skin bright red, flesh tender, juicy, sprightly, sub-acid ; one of the finest of this class of cherries. Tree hardy and very productive.	Last of July.
Mod.	<b>Empress Eugenie</b> —Fruit large, dark red, very rich, tender and sub-acid. A superior variety.	First of July.
Mod.	<b>English Morello</b> —Medium to large ; blackish red, rich, acid, juicy and good ; very productive.	August.
Free.	<b>Early Richmond</b> (Kentish, Virginian May)—Medium size, dark red ; melting, juicy, sprightly, acid flavor. This is one of the most valuable and popular of the acid cherries, and is unsurpassed for cooking purposes, and is exceedingly productive.	June.
Mod.	<b>Late Duke</b> —Large, light red ; late and fine.	Last of July.
Free.	<b>Late Kentish</b> —Fruit medium, round, deep red when ripe ; very juicy, highly acid ; one of the best for culinary purposes.	End of June.
Free.	<b>Large Montmorency</b> —A large, red, acid cherry, larger than Early Richmond, and fully ten days later.	End of June.
Free.	<b>Louis Philippe</b> —Very productive ; fruit large, roundish, regular ; color rich dark, almost purplish black red ; flesh red, tender, sprightly ; mild acid ; good to best.	Middle of July.
Free.	<b>Leib</b> —A new Morello, one week later than Early Richmond, and claimed to be very superior.	End of June.
Free.	<b>May Duke</b> —Large, dark red, juicy and rich ; an old excellent variety ; productive.	Middle of June.
Free.	<b>Olivet</b> —A new variety of French origin. Large, globular, very shining, deep red sort ; flesh red, tender, rich and vigorous ; very sweet, sub-acid flavor.	Middle to last of June.
Vig.	<b>Reine Hortense</b> —Very fine ; large, bright red ; juicy and delicious, and productive.	Middle of July.

## NECTARINES.

A most delicious, smooth-skinned fruit, which thrives wherever peaches will grow, but it is liable to be stung by the curculio, and requires the same treatment as plums. Ripens in August.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Vig.	<b>Boston</b> —Large, deep yellow, with a bright blush and mottlings of red ; sweet and a peculiar, pleasant flavor ; freestone ; the largest and most beautiful variety known ; hardy and productive.	Sept'r.
Free.	<b>Early Violet</b> —Medium sized, yellowish green, nearly covered with dark purplish red ; juicy, rich and high flavored.	Last of Aug.
Vig.	<b>Early Newington</b> —Large, pale green, nearly covered with blotches of red ; juicy, rich and sweet ; probably the best clingstone Nectarine.	First of Sept.
Free.	<b>Elruge</b> —Medium size, pale green, with a dark red cheek ; flesh pale green, very juicy and rich.	First of Sept.
Vig.	<b>Hunt's Tawney</b> —Medium ; pale orange ; juicy, rich and excellent ; very early and productive ; the best of its season, and worthy of general cultivation on account of its hardness ; freestone.	First to middle of Aug.
Vig.	<b>Red Roman</b> —Large size, greenish yellow, with a dark, dull red cheek ; flesh yellowish, fine and rich ; productive.	First of Sept.

## APRICOTS.

A delicious fruit of the plum species, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; it bears immense crops; ripens in July and August.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Breda</b> —Small, dull orange, marked with red; juicy, rich and vinous; productive and hardy.	First of Aug.
Vig.	<b>Early Golden</b> (Dubois)—Small, pale orange; juicy and sweet; hardy and productive.	First of July.
Vig.	<b>Hemskirke</b> —Large; bright orange, with a red cheek; juicy, rich and luscious; large and remarkably handsome English variety, and one of the very best.	End of July.
Free.	<b>Large Early</b> —Medium; orange, with a red cheek; sweet, rich and juicy; one of the best early sorts.	Middle of July.
Vig.	<b>Moorpark</b> —One of the largest; orange, with a red cheek; firm, juicy, with a rich flavor; very productive.	August.
Vig.	<b>Peach</b> —Very large; orange, with a dark cheek; juicy and high flavored; similar to Moorpark.	August.
Vig.	<b>Roman</b> —A remarkably hardy and prolific apricot, producing good crops where none others succeed; flesh rather dry.	End of July.
Vig.	<b>Royal</b> —Large; yellow, with an orange cheek; juicy, rich and delicious; a very fine variety, and well deserving a place in collections.	End of July.
Vig.	<b>Russian Apricot</b> ( <i>Prunus Siberica</i> )—Described as the hardiest of all the apricots, having stood 30° below zero without injury, while the Moorpark and Breda were frozen to the ground. Remarkably free from diseases, worms and insects. In Kansas and Nebraska, where they have been planted quite largely by the Menonites, it is said not an unhealthy tree can be found. Fruit medium size and of the best quality.	
Free.	<b>St. Ambrosia</b> —A new variety; large, oblong; very sugary and rich; a vigorous grower and very productive.	Middle of Aug.

## QUINCES.

The Quince is attracting a great deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requires but little space, productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts to them a most delicious flavor.

It flourishes in any good garden soil, which should be kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

HABIT OF GROWTH	NAME AND DESCRIPTION.	SEASON.
Free.	<b>Apple or Orange</b> —Large, roundish; bright golden yellow; cooks tender and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated variety.	Oct.
Vig.	<b>Angers</b> —Somewhat later than the preceding; fruit rather more acid, but cooks well; an abundant bearer.	Oct.
Vig.	<b>Champion</b> —A new variety originated in Connecticut. The tree is a prolific and constant bearer; fruit averaging larger than the Orange, more oval in shape, quality equally fine, and a longer keeper.	Oct. & Nov.
Free.	<b>Rea's Mammoth</b> —A seedling of the Orange Quince; one-third larger; of the same form and color; fair, handsome, equally as good, and productive.	Oct.



## GRAPES.

The vine comes quickly into bearing, yielding fruit usually the second year after planting; requires but little space, and when properly trained is an ornament to the yard, garden or vineyard.

It is stated by some of the most eminent physiologists, that among all the fruits conducive to regularity, health and vigor in the human system, the Grape ranks number one. We hope soon to see the day when every family shall have an abundant supply of this excellent fruit for at least six months in the year.

The soil for the Grape should be dry; when not naturally so, should be thoroughly drained. It should be deeply worked and well manured, always bearing in mind that it is an essential point to secure a warm, sunny exposure.

The best grape vine trellis is probably the wire trellis. This is constructed by planting posts as far apart as you choose to have the length of your trellis, stretch the wires, four in number, about eighteen inches apart, letting them pass through stakes at proper distances from each other to support the wire. As the wires are contracted by the cold, and are likely to break or sway the posts from their places, they should be loosened as cold weather approaches.

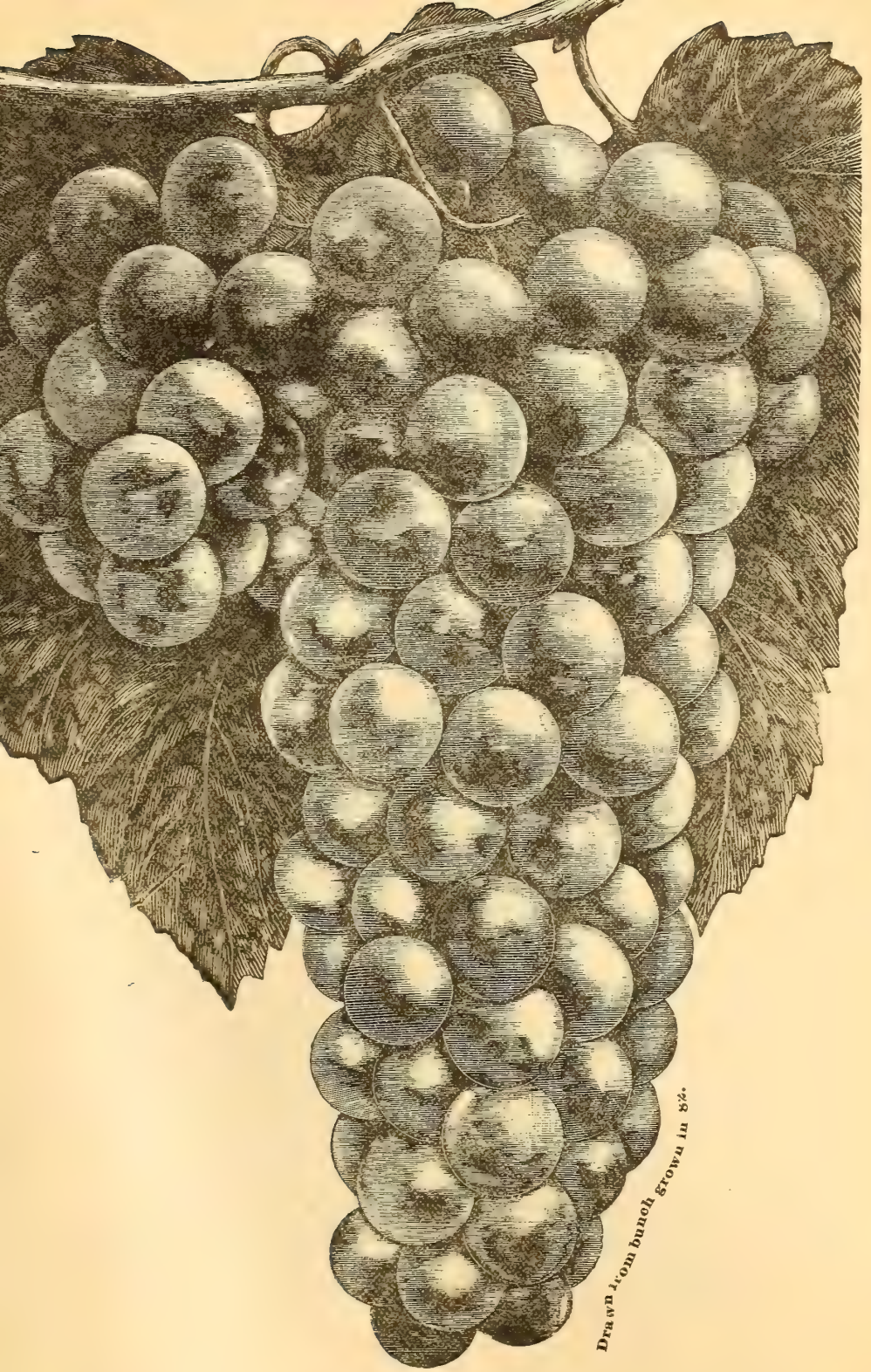
When, however, it is not convenient to make a wire or other trellis, very good results are had with the old vineyard system of training to stakes. The vines are planted six feet apart, in a place exposed to the sun and protected from cold winds, if convenient, and are trained to an upright stake. This method is as simple as the cultivation of Indian corn. Often a large and uncomely rock may be converted to usefulness and beauty by planting a grape vine on its sunny side, and making use of the rock as a trellis.

To secure the best results, annual and careful pruning is essential. The following is regarded as the best method: commencing with a good strong vine, such as we furnish, permit it to grow the first season without pruning. In November or December following, cut back the growth, allowing but three or four buds to remain. The following Spring, allow but two of the strongest buds to throw out shoots. These, in the Fall, will be from seven to ten feet long, and should be cut back to within four or five feet of the root. The next Spring the vine should be fastened to the lower part of the trellis. When growth commences, pinch the buds so that the shoots will be from ten to twelve inches apart. As these grow, train them perpendicularly to the second, third and fourth bars of the trellis. No fruit should be allowed to set above the second bar of the trellis.

During the season when the shoots have reached the upper part of the trellis, they may be pinched to prevent further growth. After the fruit is gathered, and the vine has shed its foliage, the cane should then be cut back to two buds. The following Spring allow but one bud to throw out a shoot, and treat as in the previous year. This system of pruning should be followed each year. After the vine has undergone the Fall pruning it may be laid upon the ground and covered with boughs, to protect it through the Winter. Grape vines should be top-dressed in the Spring.

Grapes may be kept through the Winter, and even all the year, in small boxes holding three to five pounds, if placed in a cool, dry room, of even temperature; or they may be spread out to dry for two days and then laid in market baskets, and suspended in a cool, dry cellar.

COLOR.	NAME AND DESCRIPTION.	SEASON.
Amber.	<b>Amber Queen</b> —Is very early, hardy, and a strong grower; leaf strong and thick, somewhat downy on underside; fruit always eatable in August; amber color, but growing darker and richer to the fifteenth of September, when, by its heavy bloom, it becomes a purple grape. Tender to the center and small seeds. Bunch large and shouldered like the Hamburg; berry large, frequently oblong, holds persistently to the bunch, and cannot be pulled off without breaking the skin, and with proper care will keep all Winter. It is a scientific hybrid, between the Marion, a wild frost grape, and the Black Hamburg.	Aug. & Sept.
Black.	<b>August Giant</b> —A cross between Black Hamburg and Marion, a native frost grape. Bunches very large, with rather long and very strong stem; when shouldered, the shoulders are always short and very double; berries very large, somewhat oblong, often measuring $1\frac{1}{4}$ inches in diameter. Placed in a basket beside Black Hamburg, the August Giant can hardly be distinguished from it. Fruit, when well grown, has a decided Hamburg flavor; quite tender to the center; very rich and fine. Leaf strong and thick, and vine an enormous grower.	Aug.



Drawn from bunch grown in 82.

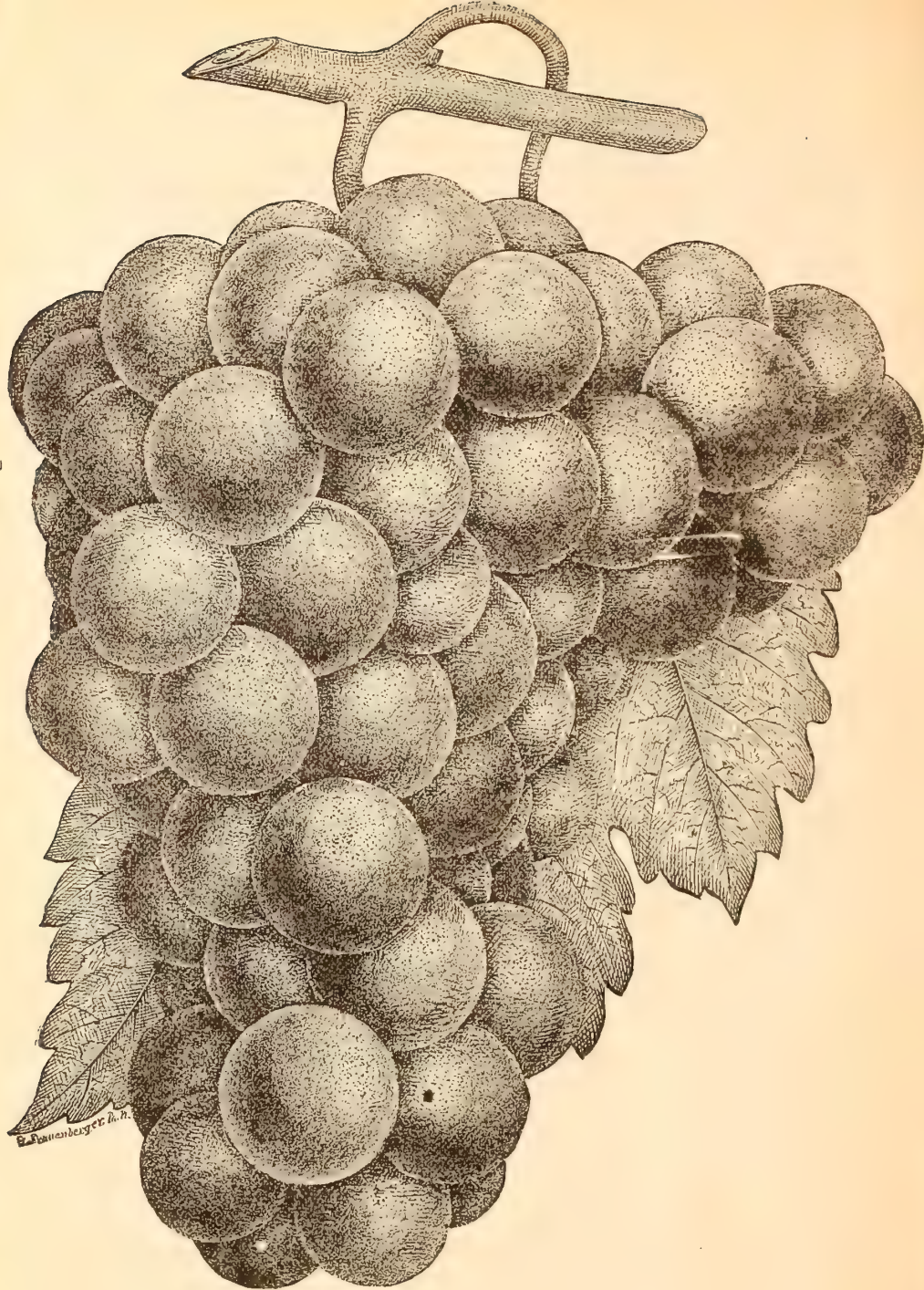
EMPIRE STATE.



COLOR.	NAME AND DESCRIPTION.	SEASON.
Black.	<b>Bacchus</b> —New. Another of Rickett's Grapes, who describes it as both a table and wine grape; very hardy in wood, leaf and fruit, and pronounced by all committees and amateurs who have tested it as having all the peculiar qualities necessary in a perfect wine grape; very productive, bunch compact, about six inches long; berry medium in size; pulp half tender, juicy and sprightly. In 1880 the parent vine bore 1,500 bunches successfully. The must, by Ochel's scale, has registered 95 to 110 for a number of years. The must in 1881, which was not a good year, in two vineyards, 107, 108 respectively.	Sept.
Purple.	<b>Brighton</b> —A cross between the Concord and Diana Hamburg. It gives the best of satisfaction. Bunches large, berries of medium size, dark red; flesh sweet, tender, and of the highest quality. Ripens one week earlier than the Delaware.	First of Sept.
Black.	<b>Burnet</b> —This is a new and very promising Grape, sent out by the Ontario (Canada) Fruit Growers' Association, ripening and having equally as good productive qualities as the Concord, but in flavor, far superior; vine very vigorous and hardy.	First to middle of Sept.
Purple.	<b>Catawba</b> —Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; ripens with Isabella; requires the most favorable soils and situations, good culture and warm seasons, to mature perfectly in Western New York.	Last of Sept.
Black.	<b>Champion</b> (Talman)—This variety is valued chiefly for its earliness, being a number of days earlier than the Hartford, and nearly or quite equal to the latter in flavor.	August
Black.	<b>Concord</b> —A popular variety where the choice kinds fail to ripen; universally healthy, vigorous and productive; flesh somewhat buttery, moderately juicy and sweet. Bunch large, nearly black with bloom; early.	Sept.
Black.	<b>Dempsey's No. 25</b> —A new seedling originating with Mr. Dempsey, President of the Fruit Growers' Association of Canada, and very highly recommended by him; vine vigorous grower.	Sept.
Red.	<b>Delaware</b> —Still holds its own as one of the finest grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vines moderately vigorous, very hardy and productive.	Sept.
Red.	<b>Diana</b> —Bunches a little above medium size, compact; berries large, light red, very juicy and sweet, with distinct, spicy, refreshing flavor; vine a vigorous grower, and bears well; ripens a little before the Isabella.	Last of Sept.
White.	<b>Duchess</b> —The Duchess originated with A. J. Caywood, in Ulster county, N. Y. Bunch medium to large, often eight inches long, shouldered, compact; berries medium, round, greenish white; skin thin; flesh tender, without pulp, rich and delicious. Ripens with the Delaware.	Sept.
White.	<b>Empire State</b> —The Empire State is a seedling of the Hartford Prolific, fertilized with the Clinton; fruited the first time in 1879, and its first crop was thirty-eight bunches, which it carried through in fine order. Its crop in 1880 was forty-eight bunches, of most magnificent fruit. Grafts inserted in two-year-old Clinton and Champion vines in 1880, produced in 1881, from twenty to thirty bunches per vine, ripening with Hartford Prolific and Moore's Early. Nearly all of the bunches shouldered, and the finest shade of white ever seen in fruit. A good grower and fruiter in every respect. Bunches large, from six to ten inches long, shouldered; berry medium to large, roundish oval; color white with very light tinge of yellow, covered with a thick, white bloom; leaf thick, smooth underside; flesh tender, juicy, rich, sweet and sprightly, with a slight trace of native aroma, continuing a long time in use; vine very hardy. Its great productiveness, beautiful color, fine quality, extreme hardness and vigor and healthfulness of vine and foliage, size and compactness of cluster and good shipping qualities make it the best Grape, all things considered, yet produced. (See cut).	Early in Sept.
Black.	<b>Early Victor</b> —This new extra early grape of Kansas origin, is gaining a fine reputation throughout the entire country. In bunch and berry it is rather below the average, but ripens very early, and what is of special importance it is very pure in flavor with very little pulp and without a trace of foxiness, or other unpleasant taste: while it is exceptionally sweet, sprightly and vinous, never cracks and adheres firmly to the bunch. Further, the vine is hardier even than Concord and one of the few that resist mildew perfectly. Color black with a fine bloom.	Last of Aug.
Black.	<b>Eumelan</b> —A native black grape. Bunches above medium, very handsome double shouldered and moderately compact; berries round or slightly oval; in size medium; in color black. Its flesh is tender to the very center; its flavor rich, vinous and sprightly.	Sept.

COLOR.	NAME AND DESCRIPTION.	SEASON.
Black.	<b>Hartford Prolific</b> —Bunches rather large; berries large, globular; color almost black, covered with a beautiful bloom; flesh sweet and juicy. Ripens four or five days before Concord; valuable for its hardiness, abundant bearing and early maturity.	August.
Red.	<b>Iona</b> (Dr. Grant)—Bunches large, long, somewhat shouldered and loose; berries medium, of a fine, clear wine color; skin thin; flesh tender, without pulp, with a brisk, sweet vinous flavor. Ripens about a week after the Delaware.	Sept.
Black.	<b>Ives</b> —Probably a seedling of the Isabella; hardy and productive, but with a tough, acid center.	Sept.
Red.	<b>Jefferson</b> —Vine very vigorous, very hardy and productive; leaves large, thick, downy; bunch very large, often double shouldered, very compact; berries large, roundish, oval, light red, with a thin lilac bloom, flesh meaty or solid, tender, juicy sweet, slightly vinous, spicy; best for market.	Sept.
White.	<b>Lady</b> —A seedling of the Concord, introduced by G. W. Campbell, of Delaware, Ohio. Of medium size, white and very good flavor; very early.	First of Sept.
White.	<b>Lady Washington</b> (Ricketts)—A new grape, a cross between Concord and Allen's Hybrid. Fruit yellow, tinged with pink; bunches very large, often weighing a pound. Vine strong, very hardy, and has so far resisted the attacks of insect enemies without harm. Very highly commended by leading pomologists.	Sept.
Red.	<b>Mary</b> —Supposed to be a seedling of Catawba. Ripens about the same time as Salem, and of equal good quality, and has not as much pulp, is sweet and delicious. Bunch medium size and moderately compact; berry dark red in color and hangs long on the stem. Remarkable for its keeping qualities. Fruit can be kept in perfect condition until May.	Middle of Sept.
White.	<b>Martha</b> —A seedling of the Concord, which it resembles in growth and hardiness. Bunch of good size, and berry large, of pale green or light color; buttery, sweet, juicy, sprightly. Ripens with the Concord.	Sept.
Black.	<b>Monroe</b> —Bunch medium to large, shouldered; something like Concord. Berries large, round; skin rather thick, black, covered with a thick coating of white bloom, very handsome. Flesh juicy, sweet, vinous and sprightly; a pleasant, refreshing table grape, and it is believed will make good wine. The vine is vigorous, with firm, short-jointed, hardy wood, which always ripens well; fine, healthy foliage, which has never shown a trace of mildew. Ripens with Hartford Prolific.	Last of Aug.
Black.	<b>Moore's Early</b> —A new hardy grape, a seedling of Concord, combining the vigor, health and productiveness of Concord, and ten days earlier than Hartford. In quality, hardly to be distinguished from Concord. This grape has taken the first prize at the Massachusetts Horticultural Society since 1872, when first exhibited, and the \$60 prize of the same society each year for the best new seedling. Promises to be a valuable acquisition. Bunch large, berries very large, black.	Aug.
Purple.	<b>Naomi</b> —New. One of the J. H. Rickett's seedlings and described by him as one of the very best table grapes in his collection. Vine very vigorous and productive; flesh tender, juicy, melting, rather crisp, sweet and sprightly, with a trace of Muscat flavor. Ripens with the Concord.	Sept.
Purple.	<b>Norfolk</b> —New, and owned exclusively by us. A cross between Black Hamburg and Marion. A strong grower, with thick leathery foliage. An abundant bearer of remarkably showy fruit, heavily covered with lilac bloom. Color same as Catawba, with bunch somewhat larger, usually double shouldered. Ripens two weeks before Concord. The fruit is of a decided Muscat flavor, very sweet and rich; holds well to the bunch, but is not as long keeper as Amber Queen, but for home use will be sure of a place in every garden when known. The vines have stood 18 degrees below zero without protection and without injury.	Last of Sept.
Red.	<b>Owasco</b> —New. A chance seedling, supposed to be from the Catawba, combining the following desirable qualities: Hardiness, size, beauty, quality, productiveness and adaption to the climate of northern latitudes. Vine a strong grower, resembling in quality and appearance the Iona.	Early Sept.
Golden.	<b>Pocklington</b> —Is a seedling of the Concord. Originated and raised from seed by John Pocklington, Washington County, N. Y., an elevated, cold, late locality. The vine thoroughly hardy, both in wood and foliage. Strong grower; never mildews in vine or foliage. Called a white grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunch very large, sometimes shouldered; berries round and very large and thickly set; <i>quality when fully ripe, much superior to Concord</i> . It will prove the white grape for the million, both for market and for home use; ripens with the Concord. (See cut.)	First of Sept.





THE "GOLDEN POCKLINGTON."

COLOR.	NAME AND DESCRIPTION.	SEASON.
White.	<b>Prentiss</b> —A seedling of the Isabella; bunch large, not often shouldered; compact; berry medium to large, yellowish to green, sometimes with rosy tint on side next the sun; skin thin but very firm; flesh tender, sweet, melting, juicy, with a very pleasant musky aroma; vine a vigorous grower, with thick, heavy foliage, and very productive. Quality the very best, resembling Rebecca. An excellent keeper. Ripens with Concord; One of the most promising new sorts.	Sept.
White.	<b>Rebecca</b> —A fine and delicious white grape, berry and bunch medium size; vine a slow, slender grower and abundant bearer; not quite hardy. Ripens almost as soon as the Delaware.	Sept.
Red.	<b>Vergennes</b> —This is a chance seedling found in the garden of Mr. William E. Green, Vergennes, Vt. Downy and free from mildew; very productive; clusters large, berries large, holding firmly to the stems; color light amber, flavor rich and delicious, flesh meaty and tender. Ripens as early as Hartford Prolific, and is an excellent late keeper.	Aug.
Black.	<b>Worden</b> —This variety is a seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored, and to ripen several days earlier.	Sept.

### ROGERS' HYBRIDS.

Red.	<b>Agawam</b> (No. 15)—Large, round, early, and of great vigor of growth. Rich, high, peculiar aromatic flavor. Considered by Mr. Rogers as the best of his strictly Red Hybrids.	Sept.
Red.	<b>Gœthe</b> (No. 1)—A fine light colored variety, tinged and nearly covered with red when fully ripe. It has more the flavor of its foreign parent than any of the others, being tender to the center. Bunch and berry large. Ripens with Catawba.	Last of Sept.
Red.	<b>Lindley</b> (No. 9)—Resembles No. 3 in appearance, but distinct in flavor.	First of Sept.
Red.	<b>Massasoit</b> (No. 3)—Large; resembles Diana in quality; a little native flavor; tender, sweet and good. Said to be the earliest of these Hybrids, and by some highly esteemed.	Last of Aug. to First of Sept.
Black.	<b>Merrimack</b> (No. 19)—Very large and earlier than the Diana; very strongly resembles No. 4. Berries and bunches large, compact; a very strong grower.	Sept.
Red.	<b>Salem</b> (No. 22)—Bunch large and compact; berry large, of a light chestnut or Catawba color, thick skinned, perfectly free from hard pulp; very sweet and sprightly, with a most exquisite aromatic flavor; as early as the Delaware, having never failed to ripen in the most unfavorable season for the past six years; keeps well.	First of Sept.
Black.	<b>Wilder</b> (No. 4)—Large, bunches generally shouldered; berry round and large, flesh buttery, with a somewhat fibrous center, sweet, rather sprightly.	Middle of Sept.

### SELECT FOREIGN VARIETIES.

COLOR.	NAME AND DESCRIPTION.
Black.	<b>Black Barbarossa</b> —A very profitable variety for market purposes. Bunch large, berries large, oval, black; juicy, sweet and very agreeable.
Black.	<b>Black Frontignan</b> —Bunch rather large; berry medium, round, quite black; skin thin with a rich musky flavor.
Black.	<b>Black Hamburg</b> —The most popular of all foreign grapes. Bunch large, shouldered; berries very large, oval; purplish black; juicy, sugary and rich.
Black.	<b>Black Prince</b> —Bunch long, somewhat open; berries large; black, covered with a blue bloom; tender, juicy, rich and sprightly.
White.	<b>Bowood Muscat</b> —Bunch large and shouldered; berries large, oval sweet and rich, with a strong Muscat flavor. Popular.
White.	<b>Buckland's Sweetwater</b> —A beautiful variety for the cold house. Bunch very showy, large and shouldered. Berries medium; amber, juicy, melting and delicious.
White.	<b>Canon Hall Muscat</b> —An English seedling from the Muscat of Alexandria; sets its fruit a little better than the old sort; fine.



COLOR.	NAME AND DESCRIPTION.
Black.	<b>Champion Hamburg</b> —A splendid grape, like Black Hamburg.
White.	<b>Chasselas Musque</b> (Muscat Blanc Hatif)—Bunches long, loose; berries medium size, with a fine musky flavor; excellent; cracks occasionally.
White.	<b>Duchess of Buccleugh</b> —Bunch long and tapering; berries medium; early and abundant bearer. Suited for a hot or cold vinery.
White.	<b>Duke of Buccleugh</b> —Said to be the largest and handsomest grape in existence; of a bright amber color when ripe; succeeds with the Black Hamburg, but ripens a month earlier.
White.	<b>Foster's White Seedling</b> —Berries full size, roundish oval, sweet and richly flavored. Superior to the Royal Muscadine.
White.	<b>Golden Chasselas</b> —A large, handsome grape; hardy, productive and excellent; resembles Royal Muscadine.
White.	<b>Grizzly Frontignan</b> —Bunch long, with narrow shoulders; berries round, medium; pale brown blended with pink and yellow; very juicy rich, musky and high flavored.
Black.	<b>Gros Coleman</b> —A new, dark copper-colored grape recently introduced; recommended as being a good late keeper. Large and very prolific. Strong grower.
White.	<b>Golden Hamburg</b> —Bunch large, somewhat loose; berries round, inclining to oval; rich yellow; tender, rich, juicy, melting and sweet.
Black.	<b>Muscat Hamburg</b> —Bunch large and shouldered. Berries large, oval, black; quite firm, with a rich, musky flavor. An estimable variety for heat.
White.	<b>Muscat of Alexandria</b> —An old popular variety of the highest excellence, when well grown. Bunch very large. Berries large, oval; pale amber; sweet and rich.
Red.	<b>Rose Chasselas</b> —A beautiful grape; a sure and abundant bearer; excellent.
White.	<b>Royal Muscadine</b> (White Chasselas)—Bunch large; berries medium to large, skin thin; greenish white or amber, tender, rich and delicious flavor; one of the best for out-door culture in this climate.
White.	<b>Syrian</b> —Bunch enormously large, with broad shoulders; berries large, oval, amber, firm, juicy and sweet. This is a superb looking grape of easy culture.
White.	<b>White Frontignan</b> —Bunch and berry medium, round, thickly set; skin thin, dull white or yellow, covered with a thin bloom; flesh tender, with a rich, perfumed, musky flavor. Hardy and very productive.
White.	<b>White Lady Downes</b> —Bunches large, berries large, roundish, oval, amber color; said to be the latest keeping grape in cultivation.
White.	<b>White Nice</b> —Bunch very large; berries medium, yellowish green; crisp, sweet and of very good flavor.
White.	<b>White To-Kay</b> —Bunches very large; berries large, oval, tender, juicy and rich; one of the best late hanging white grapes. Requires strong heat to perfect the fruit.
White.	<b>White Sweetwater</b> —Bunch medium size; berries round; skin thin, clear watery green; flesh crisp, watery, sweet, but not high flavored.
Black.	<b>Wilmot's No. 16</b> —Seedling of Black Hamburg; of higher flavor.
Black.	<b>Zinfindal</b> —Bunches large; berries medium size, good; a hardy, prolific, fine sort.

## MAMMOTH DEWBERRY OR RUNNING BLACKBERRY.

The plants are perfectly hardy and healthy, and remarkably productive. The flowers are very large and showy. The fruit, which ripens with the Mammoth Cluster Raspberry, is often one and a half inches long by one inch in diameter, soft, sweet and luscious throughout, without any hard center or core. As the Dewberry roots only from the tips, and does not sprout like blackberries, this will be much more desirable for garden culture, and the trailing habit of the plant will render winter protection easily accomplished in cold climates where that precaution may be necessary.

## IMPROVED DWARF JUNE BERRY.

The Juneberry is one of the most valuable berries. The wood is hard and firm and endures the extremes of climate without injury. Its leaves are a dark, glossy green and very much resemble the pear. The plant propagates from suckers. The flowers appear about the time as those of the apple. The petals are white and five in number. The fruit is borne in clusters like the currant, and ripens in June. Its size equals the wild gooseberry; shape, round; color, reddish purple at first and becomes a bluish black when fully ripened. Its flavor approaches the huckleberry, a mild, very rich sub-acid. Most people like its quality and pronounce it delicious. It may be served with sugar and cream or cooked as sauce, and is splendid canned for winter use. The plant is about the height and form of the currant bush. It produces fruit in enormous quantities, and bears every year. It is also perfectly hardy, not being injured by wet, cold or dry weather, and needs no special treatment.

## SMALL FRUITS.

The small fruits, such as Strawberries, Raspberries, Blackberries, Gooseberries, Currants, etc., ripening from the first of June till Fall, are everywhere capable of successful cultivation, and yield large returns at comparatively small expense. They should have a place in every garden. Since the introduction of self-sealing jars and cans, they can be had throughout the year almost as fresh as when gathered.

### STRAWBERRIES.



GLENDALE.

First of the Small Fruits in the month of June comes the beautiful, wholesome and appetizing Strawberry. The profits which may result from its cultivation, when properly conducted, are enough to satisfy the highest expectations.

Plant in March, April, May, September, October, or November, on good ground, deeply worked and well manured. Vegetable manure (muck, rotted turf, wood soil, ashes, etc.) is the best. Bone dust is excellent. Set in 3 feet rows, 15 inches apart in row for field culture, and 15 inches each way for garden, leaving a pathway at every third row. Keep in hills with runners cut, unless troubled with the white grub. Cultivate clean, mulch late in the Fall, uncover crown early in Spring, remove mulch after fruiting, and spade in light dressing of manure.

NAME.	DESCRIPTION.
<b>Bidwell.</b>	One of the very best, abundantly productive, full average size, excellent flavor and one of the very earliest.
<b>Big Bob.</b>	A fine variety for either market or private gardens. Fruit of large size and of good quality; ripens moderately early. It is a pistillate variety, requiring some other perfect flowering sorts to be planted near it.
<b>Cumberland Triumph.</b>	A magnificent variety; berries immense; fine perfect form, and of fine flavor. Plant very vigorous and productive.
<b>Crescent Seedling.</b>	Medium, conical, bright scarlet, very uniform in size. A beautiful berry, commencing to ripen with Wilson's Albany, and continuing in fruit longer. Has been shipped 200 miles without changing color. It is astonishing in its productiveness, yielding, it is claimed, ten thousand quarts to the acre. The plants are wonderful in growth, taking entire possession of the ground to the exclusion of weeds and grass. It appears alike at home on all soils.
<b>Captain Jack.</b>	Immense yielder; fruit medium to large, good flavor. Similar to the Wilson, but better flavor. It is a strong and luxuriant grower, healthy and productive; berries large, handsome and solid, somewhat resembling the Wilson, of which it is said to be a seedling, though better in quality and increases more rapidly. The berry is of good size, the flavor is all that can be desired, and for productiveness has few equals.
<b>Col. Cheney.</b>	A new variety of large size, which promises well.
<b>Charles Downing.</b>	Large, conical, crimson; flesh firm; of fine flavor and good quality; plant healthy, vigorous and productive.



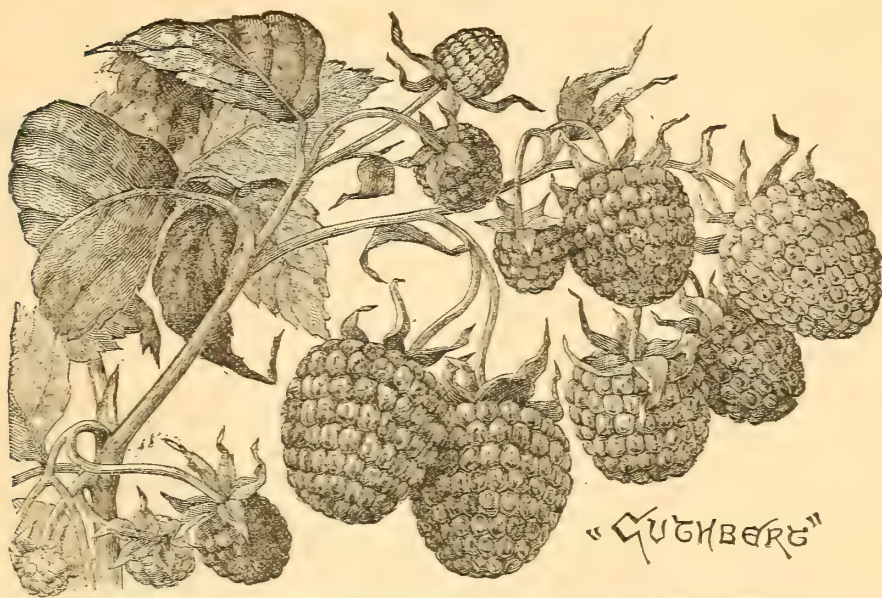
NAME.	DESCRIPTION.
Early Canada.	New; originated in Ontario, Canada. Resembles the Wilson, but is five to ten days earlier; very productive. It has been extensively tested and has yielded large profits to grower by being ready for market before any other sort.
Forest Rose.	A variety of great excellence, of large size, and handsome. A very luscious berry, somewhat resembling the Jucunda in color and texture. Plants very vigorous and productive.
Glendale.	As a late profitable market berry, this is the very best in many sections; large, oblong-conic, scarlet, and very firm but rather acid; a strong grower and productive.
Great American.	The largest variety cultivated. Fruit sometimes 9 inches in circumference. Originated by Mr. E. W. Durand, who claimed that his son picked 22 quarts in 20 minutes. A vigorous grower; flesh firm; flavor fine; productive.
James Vick.	Origin, Missouri—An exceedingly vigorous grower, foliage healthy and of a peculiar dark or blue-green color, very distinct perfect blossom. Those who have fruited it largely say it is very productive and a superior shipping berry; fruit medium size and very uniform.
Jucunda.	Large, glossy, scarlet, juicy, fine flavor; late.
Kentucky.	A native of Kentucky; very large, bright scarlet, sweet and delicious; ripens about a week later than most varieties; fruit firm; a fine market sort; plant hardy and very productive; valuable for the late market.
Lenning's White.	The best white variety. It is highly perfumed and of exquisite quality, but not very prolific. Valued for preserving.
Mrs. Garfield.	A seedling of the Crescent, with perfect blossom, just being introduced. It is a healthy, vigorous plant, fruit stems stronger than most varieties, very prolific. and bears a long time; fruit large to the end of the season, bright red and excellent quality; a good shipper.
Manchester.	New. Size large, color scarlet, flesh pink, firm but melting, with a rich sub-acid juice, and a decided aromatic flavor. Plant robust and very productive; quality, very good to best. The plant is seemingly well adapted to very light soils, and will doubtless find itself at home throughout a wide range of country, and prove itself to be especially valuable for market, whether near or distant.
Napoleon III.	Round, scarlet, white fleshed; fine spirited flavor.
Old Iron Clad (Phelps Seedling), }	Origin, Southern Illinois. This is a strong grower, producing enormous stools; foliage very large and healthy, of a light green color; the fruit is from large to very large, very firm bright scarlet of fine quality and ripens early. The roots are very long, which enables it to stand the Winter's cold and Summer's drought; where best known it is being planted extensively for market.
Prince of Berries,	Superior in flavor and quality; brilliant and beautiful in color, productive, ripens late; firm, a good shipper, large size, perfect in blossom; is regarded by those that know, to be a very promising variety.
President Wilder,	Large, conical, scarlet, sweet, fine flavor, good bearer. A cross between Hovey's Seedling and La Constante.
Triomphe de Gand,	Large, conical, often coxcombed; polished, sweet and fine flavored. Does best on heavy soils. Most popular foreign variety.
The Sharpless,	This is one of the very best new varieties. Large in size, delicious flavor; good bearer, bright color. Specimens exhibited weighed 1½ ounces and measured seven inches in circumference. Has been thoroughly tested and is grown and recommended by our largest nursery growers in the country.
Wilson's Albany,	Large, conical, dark red, firm, hardy; prolific, rather acid. Succeeds everywhere.

## RASPBERRIES.

This fruit comes just after strawberries, and when properly cultivated is quite profitable.

Plant on strong soil, manure freely, cultivate well or mulch heavily. For field, rows seven feet apart, four feet in row. Pinch off canes when three feet high, and prune off laterals the following Spring, within twelve or eighteen inches of the cane; in garden culture, tie up to single wire. Cut out old wood each year. Cover tender varieties in Winter by bending down and throwing on earth.

## RED RASPBERRIES.



"CUTHBERT"

NAME.	DESCRIPTION.
Antwerp, (Hudson River.)	Conical, firm, sweet and good; very productive; half hardy. A standard market variety.
Brandywine.	A large, scarlet berry, firm and beautiful; bears transportation well, but not quite equal to some others in quality.
Clarke,	Another highly valuable sort, which has proved perfectly hardy with us. Bush a strong grower. Fruit large size, beautiful light scarlet, and of the most delicious flavor. Commences to ripen with the earliest, and keeps in bearing till late in the Summer.
Crimson Beauty.	This is one of the "earliest and firmest of the large, productive red raspberries." "It is of very large size, bright, glossy scarlet, round to oblongish; earlier than the Turner, of a more pleasant, sprightly, flavor, equally as hardy, more productive, and of much larger size."
Cuthbert.	A new variety of the greatest excellence. One of the few kinds that may be pronounced perfectly hardy. The canes are tall and vigorous, and enormously productive. Berries very large, conical; rich crimson, very handsome, and so firm that they can be shipped hundreds of miles by rail without injury. Flavor rich, luscious, best, commences to ripen moderately early, and holds on until all others are gone.
Delaware.	A seedling from the Hornet, combining the larger size, firm flesh and lustrous qualities of its parent, with canes so entirely hardy that they require no Winter protection. Fruit long and pointed; color rich, bright red.
Ganargua,	A hybrid Raspberry; fruit large, firm, and of a brownish color. It is a rank grower, hardy, early, productive, and grows from the tips like the black cap varieties.
Hansell,	One of the very earliest and most desirable of Red Raspberries; color bright scarlet; quality excellent; very productive, and fine shipper. Its great earliness causes it to bring the highest price in market.
Herstine,	A hybrid between the well-known Allen Raspberry and the Philadelphia, combining the beautiful bright color and delicious flavor of the one, with the great productiveness of the other. Plant a good grower, bears early and abundantly, hardy and very productive on all soils. Suckers moderately. Fruit large, firm, bright crimson, with small grains. Flavor sub-acid and very good,



NAME.	DESCRIPTION.
Highland Hardy,	Plants very hardy and thrifty; unusually productive; succeeds on most any soil, and ripens the fruit very early; berry good size, bright red and sufficiently firm for shipping. Valuable for market.
New Rochelle, Philadelphia,	A new variety of great promise; dark red; very fine flavor and a great bearer. This is undoubtedly one of the most profitable Red Raspberries for marketing now under cultivation. It is a stout, healthy grower, very hardy and immensely productive. The fruit is of the largest size, and presents a fine appearance, even after it has been transported a long distance to market.
Pride of the Hudson,	Mr. Charles Downing asserts it is the "best flavored of the Red Raspberries." It will not thrive in the South or on light soil, but in the garden with partial shade, or in conditions like those on which it originated, it is unrivalled. There is scarcely a country home where moist and partial shade spots cannot be found. The northern side of a wall, hedge, or row of pear trees would supply just the condition of success with this most delicious fruit. Is not exquisite quality worth a little trouble?
Reliance	New; produces berries of the largest size; color dark, and quality better than Brandywine. Enormously productive; very desirable.
Shaffer's Colossal	Colossal both in bush and berry. Carries to market well; excellent to dry and unsurpassed for canning. Berry dark crimson in color and excellent in quality; a very valuable variety. Does not sucker, but roots from tips like Black Caps.
Niagara,	New; originated in Welland Co., Ontario. A cross between the Clarke and Philadelphia, and though resembling in some respects both of them, we consider it superior to either as a market fruit. It is a very strong grower; the berry large, of a dark red color, though not as dark as the Philadelphia. In shape like the Clarke but much firmer and more productive, and fully a week later which adds greatly to its market value.
Turner,	A beautiful red berry of fine size and excellent quality: said to be the hardest and most productive variety known.

### YELLOW RASPBERRIES.

Brinckle's Orange, Caroline,	Large, orange yellow; high flavored, tender. Said to be a hybrid between Brinckle's Orange and Catawissa. The fruit so closely resembles Brinckle's, both in appearance and quality, as to require an expert to distinguish them. The canes are vigorous, prolific and quite hardy without protection. From its superior quality and hardiness, it is of great value for the home garden.
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### BLACK CAPS.

Amer. Black Cap (Doolittle's Imp'd),	Much superior to the old American variety; of good size, with sweet, rich flavor, bears enormous crops and is an excellent market berry.
Davison's Thornless,	Scarcely a thorn on it. This, alone, is sufficient to make it very desirable indeed, but we may add, also, that it has proved to be a week earlier than the "Doolittle," fully equal in size of berry and as hardy. Very sweet and finely flavored.
Gregg,	This is decidedly the largest Black Cap that we have ever seen, far surpassing in size the famed Mammoth Cluster, averaging, when grown side by side, with the same treatment, from one-third to one-half larger.
Mammoth Cluster (McCormick),	Of all the Black Cap family, this has proved one of the most wonderful in productiveness, size, and uniformity of fruit, and stockiness and hardness of plant. The bush a strong, upright grower; foliage a rich, dark green; fruit large and handsome to the very last picking; black, with a rich purplish bloom; very juicy, high flavored and delicious; perfectly hardy, the surface sufficiently firm to bear transportation to distant markets.
Ohio,	The greatest producer among Black Caps, and for canning or evaporating claimed to be the most profitable of all sorts. Berry not quite as large as Gregg, but finer quality and the plants more hardy and will bear more successive crops.
Seneca Black Cap,	Another new variety, larger size than the Doolittle, a week later in ripening of rank grower, more firm, sweeter, exceedingly rich, very hardy and very productive.

NAME.	DESCRIPTION.
✓ Souhegan.	New. A variety of the most positive value, of excellent quality, about as large as the Gregg, and astonishingly prolific, exceeding in this respect any Raspberry known. A perfect iron clad in hardness and extremely early, at least two weeks earlier than the Doolittle. It has every indication of being the most desirable Black Raspberry yet produced.
✓ Tyler.	A new variety of undoubted merit said to be as early as Souhegan and better grower. Fruit of best quality and a very prolific bearer.

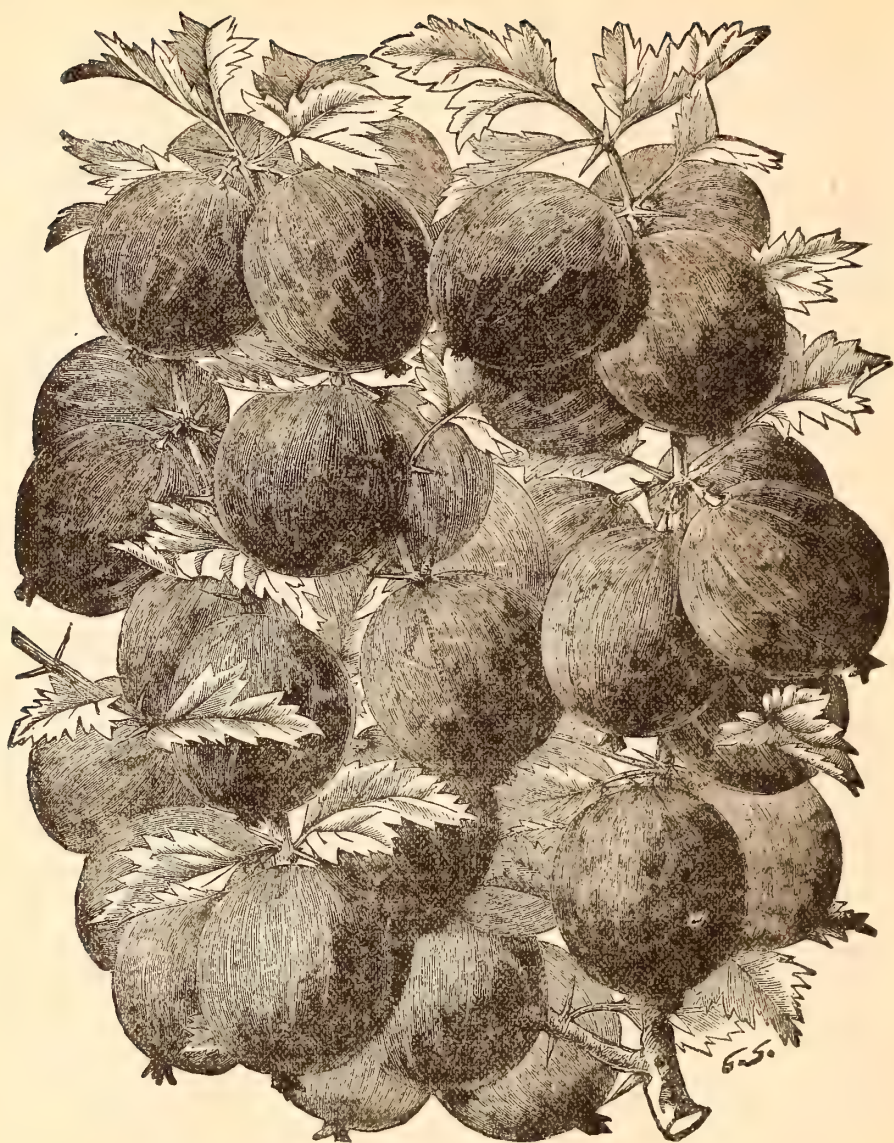
## CURRENTS.

This fruit comes partly with the Raspberry, but follows it several weeks. Indeed none of the small fruits will remain so long upon the bushes without injury as the Currant. An easy method of destroying the currant worm is by the use of powdered white hellebore (*Veratrum Album*).

Set four feet apart in rich ground; cultivate well or mulch heavily; prune out old wood, so that each remaining shoot will have room to grow; if the currant worm appears dust with hellebore every three weeks. Manure freely.

NAME.	DESCRIPTION.
✓ Black Naples.	Much larger than the Black English, sometimes measuring half an inch in diameter. Fine for wine or jellies.
✓ Black Champion.	This new variety comes from England, and has been pronounced by a committee of the Royal Horticultural Society as the finest Black Currant ever exhibited. The bunches are very large, and the flavor of the fruit particularly delicious. It hangs long on the bushes, and unlike the other varieties it will bear the severest pruning without detriment.
✓ Cherry.	The largest of all the red currants. Berries sometimes more than half an inch in diameter; bunches short, plant very vigorous and productive when grown on good soils and well cultivated.
✓ Fay's Prolific.	Color deep red; great bearer; stems longer than Cherry, and berries hold their size to the end of the stem better. Quality first class; not quite so acid as Cherry the best of all the red currants.
✓ La Versailles.	Very large, red; bunch long, of great beauty and excellent quality; one of the finest and best, and should be in every collection. Very productive.
✓ Lee's Prolific.	A new English production of great value. The fruit is large and of superior quality; the bush is a vigorous grower and enormously productive, rendering it very profitable.
✓ Prince Albert.	Large, bright red resembling the Victoria; valuable for its lateness; vigorous and productive.
✓ Red Dutch.	An old variety, excellent and well known.
✓ Victoria.	Large, bright red, with very long bunches; late, a good bearer.
✓ White Dutch.	An excellent and well known sort.
✓ White Grape.	Very large, yellowish white, sweet, or very mild acid, excellent quality and valuable for the table. The finest of the white sorts. Very distinct from White Dutch, having a low spreading habit and dark green foliage. Very productive.
✓ White Gondoin.	A large, light-colored sort, sweet, vigorous and productive.





# The Industry Gooseberry.

Large and Superior Variety recently introduced from  
England. The best authorities say it may  
revolutionize Gooseberry Culture.

— PRICE OF PLANTS. —

Forty Cents Each; Four Dollars per Twelve.

## GOOSEBERRIES.

This fruit requires the same cultivation as the currant. The surest method to prevent mildew is to plant thickly in the rows, and mulch deeply, six or more inches with straw, tan bark, coal ashes, etc. Plantations thus treated have borne large crops for twenty years. The mulch retains moisture in the dryest weather; the few weeds that push up are easily pulled, and the fruit is large and more evenly ripened. In mulching, be sure the ground is **UNDER-DRAINED**, or it is worse than useless. Good cultivation is better than **HALF** mulching. Put it on thick. In a dry season the extra amount of fruit will doubly pay for the material used, not to speak of the saving of labor and cleanliness of the fruit. The price is remunerative, and the demand is yearly increasing. The American varieties are not subject to mildew.

### ENGLISH GOOSEBERRIES.

The number of varieties of English Gooseberries is almost innumerable. The fruit is generally large and handsome. The best sorts are **CROWN BOB** (red), and **WHITE SMITH** (greenish white), which in favorable localities do extremely well.

NAME.	DESCRIPTION.
<b>Crown Bob.</b>	Fruit large, oblong, hairy; flavor first class.
<b>White Smith.</b>	Fruit large, roundish oblong; flavor first rate.
<b>AMERICAN GOOSEBERRIES.</b>	
<b>Downing.</b>	Origin, Newburg, N. Y. Fruit larger than Houghton; roundish, light green, with distinct veins; skin smooth, flesh rather soft, juicy and very good. Vigorous and productive.
<b>Houghton's Seedling,</b>	A medium sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable.
<b>Large Golden Prolific.</b>	
	This fine new seedling is a decided acquisition to the small list of hardy, mildew-proof American Gooseberries. The variety is a remarkably strong, vigorous, upright grower, with dark green glaucous foliage, which resists mildew perfectly, and persistently hangs on until the end of the season. The fruit is of the largest size, oblong—good samples measuring $1\frac{3}{4}$ inches in length. Color golden yellow, flavor decidedly good; very productive.
<b>Mountain Seedling.</b>	A strong grower and heavy bearer, berries very large, dark red, smooth; a profitable variety.
<b>Smith's Improved.</b>	From Vermont. Large, oval, light green, with bloom; flesh moderately firm, sweet and good. Vigorous grower.

## BLACKBERRIES.

Plant on good land, **MODERATELY** manured. Rows seven feet apart, three feet in the rows for field; prune as with Raspberries. Form a hedge or tie to wire. Cultivate **SHALLOW**.

NAME.	DESCRIPTION.
<b>Agawam.</b>	Ripens earlier than other kinds, and has a flavor similar to and equal to the wild berry. Perfectly hardy.
<b>Early Harvest.</b>	A new variety of great promise, being exceedingly early in time of ripening and always reliable. The canes are strong and upright in growth, branching stout and vigorously. Hardier than Kittatinny or Lawton; an enormous bearer. Berries sweet and of the highest quality, though not as large as some varieties.



NAME.	DESCRIPTION.
Kittatinny.	Commences to ripen after the Wilson's Early, and continues longer in bearing; is ripe as soon as black, and much earlier, sweeter and better in all respects than the Lawton, which it resembles in plant and fruit.
Lawton.	Fruit very large and black, and of excellent quality; an abundant bearer.
Snyder.	Extremely hardy, enormously productive, medium size; no hard, sour core; half as many thorns as Lawton or Kittatinny, and they are nearly straight and short. Most prolific blackberry grown.
Taylor.	One of the largest blackberries grown. Fruit of the best quality, melting and without core; very productive, and as hardy as the Snyder, which renders it very valuable.
Willson's Early.	Of good size, very early, beautiful dark color; of sweet, excellent flavor and very productive. Ripens the whole crop nearly together.
Wachusett Thornless. }	Was found growing wild on Monadnock Mountain. Fruit of medium size, oblong, oval, moderately firm, sweet and good, and less acid than any blackberry we have seen. It is a good keeper, ships well, and is therefore valuable as a market berry. The plant is said to do equally well on light and heavy soils, and to bear heavy crops where other varieties have failed. It is also very hardy, and <i>free from thorns</i> . Those who have cultivated thorny kinds must admit that this variety, which bears a good crop of berries, does well in any soil, and is free from thorns, cannot fail to be a great acquisition.

## ASPARAGUS.

To make a good Asparagus bed, the plants may be set in the fall or early spring. Prepare a place of fine loamy soil, to which has been added a liberal dressing of good manure. Select two-year, or strong one-year plants; and for a garden, set in rows 18 to 20 inches apart, with plants 10 to 12 inches in a row. Make a small mound of the soil, over which the roots should be evenly spread, so that the crowns, when covered, shall be three inches below the surface of the ground. If planted in the fall, the whole bed should be covered before Winter sets in, with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground is softened in the Spring.

## MULBERRIES.

The Mulberry is a very ornamental tree in garden or lawn, with its large, green, glossy foliage; and some newer varieties are worthy of general cultivation for their fruit alone.



NAME.	DESCRIPTION.
Downing's Everbearing. }	Produced from seeds of the Multicaulis. Tree very vigorous and productive, continuing in bearing a long time; fruit 1¼ inches long and ¾ of an inch in diameter; color blue black, flesh juicy; rich, sugary, with a sprightly, vinous flavor.
New American	Fruit of the largest size, black, delicious in flavor. An attractive lawn tree, with very large leaves; of rapid growth, hardy.
White.	Commonly cultivated for silk. Fruit not equal to the black sorts.
Russian.	New. Brought to notice by the planting of them by the Mennonite colonists of the Northwest. The timber is desirable for fuel, is the finest for cabinet work, and fence posts made from it are exceedingly durable. It is a very rapid grower, bears fruit at two or three years of age, and every year; color of the fruit varies some, but is generally black; promises to be very valuable.

# LETTERS FROM OUR PATRONS.

It does the nurseryman's heart good to get letters like the following from those he has served. Please notice that it is our custom to put in some free plants with orders sent by express:

DEAR SIR.—The plants have come in good shape, and the finest plants I ever saw, and I thank you so very much for your liberal count.

GALESBURG, Ill.

N. O. STRUMBERG.

SIR.—The order, No. 1,768, arrived in due time and in good condition. Accept thanks for extras.

VICTORY MILLS, N.Y.

JOHN SAMPLE.

SIR.—I am the guilty one. I overlooked the blackberry in the moss. They are all right, and full count.

NEW BEDFORD, Mass.

CHARLES E. MURST.

DEAR SIR.—The trees and plants have arrived in good condition. Thanks for the present of Nemaha; also for the Woodruff grape.

OCONOMOWOC, Wis.

GEO. A. BREED.

DEAR SIR.—Plants were received in good order, and they were very good. I only expected \$30, and I got \$60. Why should I not be well satisfied?

INDIANAPOLIS, Ind.

THEODORE WILSON.

DEAR SIR.—Plants received in good condition, and we are glad to say they are entirely satisfactory, both as to quality and number. Much obliged for the extras you sent.

SOUTH NORWALK, Conn.

JENNINGS & WATERBURY.

DEAR SIR.—Trees came to hand all right. I never saw finer trees in my life. Great difference between some I got elsewhere. When I want more shall order of you.

ESSEXVILLE, Ore.

J. H. SHARPE.

SIR.—I received my plants on the 24th instant in good order; thanks for extra count. Whenever I want anything in your line in the future it is a settled question I will get it of Chas. A. Green.

ALLEN P. O., Md.

WM. F. ALLEN, JR.

DEAR SIR.—Have received my stock this day in splendid condition. Everything is far superior to what I expected; well rooted and very stocky, and I thank you very much for overcount.

FALL RIVER, Mass.

JAMES ASHTON.

I received the plants you sent. They were fine. I was glad to know that you could send out good stock, as that is the kind I like to buy. With many thanks for your prompt and generous attention to my complaint, I am,

BRISTOL, N. Y.

WM. S. GOODING.

We have such an acquaintance with *Green's Fruit Grower*, edited by Charles A. Green, a practical pomologist, as justifies a commendatory endorsement of his paper. His editorials are instructive, his style entertaining, and calculated to inspire confidence in him as a man. The *Fruit Grower* is published at Rochester, N.Y.—*Grange Visitor*.

HILLSDALE, Mich.

GENTLEMEN.—I wrote you a letter Saturday about my plants, and two or three hours after sending the letter I received the plants. They are all right. Thanks for the extras. Your plants were put up in good order, and came through nicely, and I will recommend others to your company.

WELLINGTON HUGHES.

GENTLEMEN.—I received to-day the Vick strawberry plant ordered by my wife some time ago, in apparently good condition, and the order was promptly attended to, and everything satisfactory. I will mention that I subscribe for your "How to Propagate Fruit" and the New York *Tribune*, all of which are regularly received.

ASHLAND, O.

L. N. RICH.

Plants received in good order, just in time, and most all grown finely. Didn't lose a dozen.

BOONEVILLE.

PETER BRIGGS.

GENTLEMEN.—My stock received, and proves satisfactory. Thanks for the gift.

SYLVANIA, O.

D. G. BLUE.

GENTLEMEN.—I received the plants in good time and shape. Accept my thanks for the gift of strawberry plants.

SHERMAN, Pa.

JOHN E. RAYMOND.

DEAR SIR.—Plants came in due time in good order, and was well pleased with them. Please send me your catalogue.

BARNHART'S MILLS.

R. GILMORE.

DEAR SIR.—I received the plants in good order, and am well satisfied with them. I am only sorry that I was not able to send for a larger amount.

HASTINGS, Mich.

MR. J. H. SUTTON.

Plants received all right, and looking fine. Let one of my neighbors have one of the packages. Have heard that he had one plant, labeled Parry, in his parcel, for which receive thanks.

OAK HILL.

C. H. NEWMAN

DEAR SIR.—I received the plants last Saturday. They came by freight instead of by express, but they were in good shape. They are the finest plants I ever saw. Thanks for the extra plants received, and promptness.

WALDO, Wis.

E. PETERMAN.

DEAR SIR.—Our stock was received in good order, and well pleased with it. It lay over at the depot one day on account of the card, which did not reach us in time, but nevertheless the stock is in good condition, the weather being cool.

DE TURKSVILLE, Pa.

BENJ. HUMMEL.

SIR.—Plants came to hand to-day in the best of condition. Many thanks for the extras. I did not expect so many, and such nice ones, too. I have made a success of flowers and vegetables, and think I can with fruit, if my health will permit. Next time I want some more grapes and pears. The only reason I can see why so many people order through agents is as Barnum says, that people like to be humbugged, and agents like to do it.

MEXICO, Dak.

MRS. CHAS. I. GILLETTE.

The plants you shipped on the 3d I received, and on account of the heavy rain we had we had yesterday could not set them, but took them out of the boxes and set them in the ground, and I hope on Monday I'll be able to plant them. I found them in fine order, and am very much obliged to you. Please accept thanks for the ornamentals. I am more than pleased with the selection.

PRINCETON, Ill.

MRS. JOHN F. CROUNSE.

DEAR FRIEND GREEN.—Your very valuable book, "How to Propagate and Grow Fruit," was received in due season, also the paper, and last your catalogue. I consider them the finest, the most instructive works having a bearing in relation to fruit growing there is published. The subjects are presented in so simple and comprehensive manner that the veriest clodhopper might grow fruit and profit by it. You are truly a public benefactor, shedding light and encouragement into dark places, and rendering that which has, to the masses, always been shrouded in mystery, clear as the noonday sun. Long may you live.

LONG LAKE, Minn.

S. R. SPATES.

Address—GREEN'S NURSERY CO., Rochester, N. Y.







# A LETTER OF ANSWERS TO INQUIRIES.

## IT WILL PAY YOU TO READ THIS CAREFULLY.

We get so many letters asking questions, it occurs to us that we may answer them more satisfactorily in this manner. There are points brought out here that all should be benefited by noting. **Especial attention** is called to the items marked with a cross.

**Our desire** is to please our patrons and to give them entire satisfaction. We have great solicitude regarding the treatment our patrons receive, and gladly rectify any mistakes that may occur. We desire however, to guard against imposition, therefore make **all claims without a moment's delay**, and make all clear and reasonable. If anything appears to be amiss do not suspect trickery and write in anger, but explain fully and expect all to be corrected.

**What will express or freight charges amount to?** You can learn this more easily than we can, by inquiring at your local offices. Remember that on heavy packages much can be saved by sending by freight, but late in the season, or in hot weather strawberry and black raspberry plants cannot go safely by freight. Everything goes safer in cool weather than in warm weather, hence the importance of sending orders early.

The weight of trees and plants varies with sizes and varieties, but on an average their weight per 100 when packed will be as follows: Apple, Pear, Plum, Cherry and Peach Trees, 100 lbs.; Peach 3 to 4 feet, Quinces, etc., 50 lbs.; Grapes, Currants and Gooseberries, two years, 30 lbs.; Ditto, one year, 20 lbs.; Blackberries and Red Raspberries, 10 lbs.; Black Raspberries, 5 lbs.; Strawberry, in light crates designed for the purpose, 25 lbs. per 1,000.

**Can the stock be sent safely by mail?** Strawberry, raspberry, grapes and most small fruits can go safely by mail thousands of miles. As it costs no more to send by mail 2,000 miles than one mile, the mail should be used mainly for distant orders. Apple, quince and peach trees of the smallest size can go by mail. Plum, pear, cherry, etc., are usually too large for mailing but can be sent in dormant bud, which means rooted stocks in which a bud has been inserted the past season, the bud intended to grow and form the tree of the desired variety, the trees to be cut off a few inches above the bud after planting, and all shoots but the one rubbed off. The buyer always pays the postage, which should be added as follows:

	Doz.	Per 50.	Per 100
Strawberries, - - -	gratis	\$.25	\$.50
Raspberries, - - -	\$.15	.40	.75
Blackberries, - - -	.20	.50	.90
Currants and Gooseberries, 20	.20	.60	1.20
Grapes, one year old, -	.20	.50	1.00
Grapes, two years old, .30	.30	.75	1.50

**All premium plants or books** must be claimed with the original order. It will be useless to request us to send items as premiums that you failed to claim when ordering, as we cannot go back and trace such small matters where they are so numerous.

**We do not make changes in premiums.** If one premium does not suit you choose another, but do not make up premiums to suit yourself, not offered by us, expecting that we will send them.

**Long letters.** Do not write them. State your business in a few words as possible and write plainly.

**State full particulars in each letter.** Do not refer to other letters expecting that we will remember what you wrote a week ago.

**Subscribers for other journals** received through us should complain direct to the publishers if their publications do not come regularly, and not to us.

**Look carefully in the packing materials** for small items. Patrons often complain of not finding a new strawberry or currant and afterwards write that they had overlooked it in the moss and litter.

**What varieties of fruit shall I plant?** This question is often asked, but in most cases you could learn best of fruit growers in your own vicinity. While we are posted on varieties suited to many localities we cannot hope to decide so accurately as an experienced person who lives near you. If you cannot get the needed advice at home leave the selection in ordering entirely to our Charles A. Green.

**Order on separate sheet** from your letter, and make all plain, attaching the prices, naming Post Office, express or freight office, and state by which we shall send. Do not say send \$2 worth of this or that but state the number of plants and price.

**Substitution of varieties.** There are thousands of varieties of apples, pears and peaches, etc., and you must not expect that any nurseryman has every variety of fruit that may be called for. If a nurseryman replies that he cannot supply some varieties, or if he at times substitutes good varieties for those called for that he has not, and cannot get, you should accept this as evidence that what he does send is true to name (correctly labeled). Beware of him who always has everything that you call for—he is apt to be a fraud. Thousands of rascally agents defraud the people annually by trees not correctly labeled. Where, in a long list, we cannot supply one or two of the items, we will substitute others as near like those called for as possible, and always varieties of great value, often more valuable than those called for. If you do not want us to do this simply state **no substitution** then we will simply omit what we cannot supply and return you the money paid.

**Why do not plants and papers come?** Do not expect to receive plants or papers immediately on ordering. Remember that many are ordering of us, at the same



moment, and that we must have a little time to reach all. We design that each order shall take its turn. We do not forget you in any case, yet always write us promptly if your order is delayed. If you desire plants sent early or late say so, but it is difficult for us to deliver on any certain day. A certain class of persons will wait until they are all ready to set plants or trees, and then on comes their order, *fill at once*, as my ground is ready—forgetting that nurserymen may have orders on hand, received previously to theirs. As we have been put to much trouble and expense by persons ordering goods to be reserved for them, and failing to remit, thus throwing the stock upon our hands at the close of the season a total loss, in the future it will be an invariable rule to accept no order from those unknown to me, unless at least ten per cent. of the amount accompanies the same.

**No name or state given.** This is one reason why plants and papers are delayed. People often forget to sign their names to letters or to name what State they live in, then we must hunt the country over to find them.

**Only four copies come of GREEN'S FRUIT CROWER.** Our reply to this complaint is that our paper at present is issued quarterly, four times a year, and not monthly, yet by condensing and careful editing we keep our readers well posted on fruit culture, single copies often being worth \$50 to the reader, as our friends write.

**Our three pamphlets.** Many who write to us for advice about fruit growing could be more fully answered by reading Charles A. Green's three pamphlets: Grape Culture, Strawberry Culture and General Fruit Culture, embracing 170 pages of practical information. In order to save time, and aid you, we will offer these three pamphlets by mail postpaid for 35 cents, which is less than half the price. After October, 1887, we will issue a pamphlet on the Apple and Pear, and one on the Raspberry and Blackberry and for the above purpose only we will furnish the five books for 50 cents.

**Shipping season.** The regular shipping season in Autumn usually begins early in October. During mild winters, such as the present one promises to be, we can ship in intervals between periods of cold weather throughout the winter. There is no better season for having Nursery Stock shipped—especially to points south and southwest, as planting in those localities needs to be done early. In the manner we pack no fears should be entertained of the plants being injured *en route* by freezing, particularly if forwarded by express or mail. Spring packing begins April 1st, or before.

**Wholesale orders.** It is a good plan, when in need of a large number of one or more varieties, to write for an estimate, being careful to name the varieties, number of each and grade (if two or more sizes are offered), and lowest figures will be given.

**Correspondence.** Although many write and ask questions that have no bearing upon the business, yet we are always perfectly willing to reply, and feel glad if able to give the desired information whether the reply be of any benefit to us or not. But we must ask a little consideration at the hands of our interrogators. We are always busy, and the desire for information usually takes the form of inquiry at or near the planting season, when we are under high pressure. Therefore, during October and November, March, April and May, we are in honor bound to give our exclu-

sive attention to the execution of orders entrusted to us; hence, in those months, can devote no time to giving advice on varieties of fruits or methods of culture.

**New varieties for testing.** If you or any of your neighbors have anything promising in the way of new varieties, we shall be pleased to have a few plants for testing.

**Large versus small trees.** The great mistake with most people in setting out fruit trees is to get the largest size trees, supposing that thereby they will get fruit sooner. In taking up large trees, the roots must be cut off more or less, and the very part that is thus cut off is the end of the roots where all the fine fibres are found. While small trees have finer and more fibrous roots; and these all growing in a bunch, are all taken up with the tree, and when transplanted the small trees grow right ahead—not being worked back and forth by hard winds, while the large trees are swayed to and fro by the winds; and, too, 100 small trees can be packed in a close bunch, with moss all among the roots, and the cost of express or freight light, while large trees cannot be packed so well protected from air, and the freight or express charges are very much more. A five to six foot tree is as large size as we would advise shipping, while we would order for a long distance, smaller trees.

**Express orders and gift plants.** We prefer that you order stock by express as it gives us a chance to furnish larger plants than we could afford to by mail. We also give free plants with orders by express, often giving enough free to fully make up for express charges. These two items furnish strong inducements for purchasers not too far distant to have their orders forwarded by express.

**Canada orders.** The International Postal Law is such that no plants can be imported by post except such as weigh eight ounces or less. This makes it imperative that Dominion customers order their plants forwarded by express or freight. We understand that the Dominion government imposes a twenty per cent. duty on plants, which the purchaser pays at the express or freight office when the plants are received.

**Out-door planting.** Always choose the most favorable time for planting in your section, and order accordingly. We can send most plants safely whenever desired, (but fruit and ornamental trees only from October to May, when in dormant condition). As our extended country compasses so many degrees of latitude and such variations of temperature from various causes, it is impossible for us to dictate as to the best time to plant out of doors, our customers must judge for themselves.

**Number of trees or plants on an acre.** Multiply the distance in feet between the rows by the distance the plants are apart in the rows and the product will be the number of square feet for each plant or hill; which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to the acre. 30 feet apart each way gives 50 trees, 25 feet apart each way gives 70 trees, 20 feet apart each way gives 110 trees, 18 feet apart each way gives 135 trees, 15 feet apart each way gives 205 trees, 12 feet apart each way gives 300 trees, 10 feet apart each way gives 435 plants or vines, 8 feet apart each way gives 680 plants or vines, 6 feet apart each way gives 1,210 plants or vines, 5 feet apart each way gives 1,745 plants or vines, 4 feet apart each way gives 2,725 plants or vines, 3 feet apart each way gives 4,840 plants or vines.

GREEN'S NURSERY CO., Rochester, N. Y.